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SESSIONAL PAPERS

VOL. LI.—PART IV.

FIFTH SESSION

OF THE

FOURTEENTH LEGISLATURE

OF THE

PROVINCE OF ONTARIO

160226
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SESSION 1919

TORONTO:
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1919

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No. 2 Estimates—Supplementary, for the service of the Province for the year ending 31st October, 1919. Presented to the Legislature, 6th March, 1919. *Printed.* Further Supplementary Estimates. Presented to the Legislature, 7th April, 1919. *Printed.* Estimates for the year ending 31st October, 1920. Presented to the Legislature, 14th April, 1919. *Printed.*

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No. 3 Report of the Minister of Lands, Forests and Mines for the year 1918. Presented to the Legislature, 17th April, 1919. *Printed.*

No. 4 Report of the Bureau of Mines, for the year 1918. Presented to the Legislature, 9th April, 1919. *Printed.*

No. 5 Report of the Inspector of Division Courts, for the year 1918. Presented to the Legislature, 6th March, 1919. *Printed.*

No. 6 Report of the Inspector of Legal Offices, for the year 1918. Presented to the Legislature, 20th March, 1919. *Printed.*

No 7 Report of the Inspector of Registry Offices, for the year 1918. Presented to the Legislature, 20th March, 1919. *Printed.*

No. 8 Report of the Provincial Municipal Auditor, for the year 1918. Presented to the Legislature, 15th April, 1919. *Printed.*

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No. 9 Report of the Commissioners for the Queen Victoria Niagara Falls Park, for the year 1918. Presented to the Legislature, 28th February, 1919. *Printed.*

No. 10 Report of the Inspector of Insurance for the year 1918. Presented to the Legislature, 3rd April, 1919. *Printed.*

No. 11 Report of the Registrar of Friendly Societies. Transactions for the year 1918. Presented to the Legislature, 3rd April, 1919. *Printed.*

No. 12 Financial Statements made by Loan Corporations, Building Societies, Loaning Land Companies and Trust Companies, for the year 1918. Presented to the Legislature, 3rd April, 1919. *Printed.*

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No. 13 Report of the Minister of Public Works of the Province, for the year 1918. Presented to the Legislature, 18th March, 1919. *Printed.*

No. 14 Report of the Game and Fisheries Department, for the year 1918. Presented to the Legislature, 11th April, 1914. *Printed.*

No. 15 Report on Highway Improvement in the Province, for the year 1918. Presented to the Legislature, 11th April, 1919. *Printed.*

No. 16 Report of the Trades and Labour Branch for the year 1918. Presented to the Legislature, 11th April, 1919. *Printed.*

No. 17 Report of the Minister of Education, for the year 1918. Presented to the Legislature, 8th April, 1919. *Printed.*

No. 18 Report of the Board of Governors of the University of Toronto, for the year ending 30th June, 1918. Presented to the Legislature, 26th February, 1919. *Printed.*

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No. 19 Report of the Secretary and Registrar of the Province, for the year 1918. Presented to the Legislature, 9th April, 1919. *Printed.*

No. 20 Report upon the Registration of Births, Marriages and Deaths, for the year 1918. Presented to the Legislature, 9th April, 1919. *Printed.*

No. 21 Report of the Provincial Board of Health, for the year 1918. Presented to the Legislature, 9th April, 1919. *Printed.*

No. 22 Report on the Hospitals for the Insane, for the year 1918. Presented to the Legislature, 9th April, 1919. *Printed.*

No. 23 Report on Hospitals for Idiots and Epileptics. *Not presented.*

No. 24 Report on Hospital for Feeble-minded, Orillia, for the year 1918, and Part II. on Feeble-minded in Ontario. Presented to the Legislature, 9th and 15th April, 1919. *Printed.*

No. 25 Report upon the Hospitals and Charities, for the year 1918. Presented to the Legislature, 9th April, 1919. *Printed.*

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No. 26 Report upon the Prisons and Reformatories for the year 1918. Presented to the Legislature, 9th April, 1919. *Printed.*

No. 27 Report upon Neglected and Dependent Children, for the year 1918. Presented to the Legislature, 15th April, 1919. *Printed.*

No. 28 Report upon the Operation of the Ontario Temperance Act, for the year 1918. Presented to the Legislature, 11th April, 1919. *Printed.*

No. 29 Report of the Department of Agriculture, for 1918. Presented to the Legislature, 9th April, 1919. *Printed.*

No. 30 Report of the Agricultural College and Agricultural Farm, for the year 1918. Presented to the Legislature, 9th April, 1919. *Printed.*

No. 31 Report of the Ontario Veterinary College, for the year 1918. Presented to the Legislature, 16th April, 1919. *Not printed.*

No. 32 Report of the Ontario Agricultural and Experimental Union, for the year 1918. Presented to the Legislature, 9th April, 1919. *Printed.*

No. 33 Report of the Stallion Enrolment Board, for the year 1918. Presented to the Legislature, 6th March, 1919. *Printed.*

No. 34 Report of the Ontario Vegetable Growers' Association, for the year 1918. Presented to the Legislature, 9th April, 1919. *Printed.*

No. 35 Report of the Corn Growers' Association, for the year 1918. Presented to the Legislature, 16th April, 1919. *Not Printed.*

No. 36 Report of the Entomological Society of Ontario, for the year 1918. Presented to the Legislature, 9th April, 1919. *Printed.*

No. 37 Report of the Ontario Bee-Keepers' Association, for the year 1918. Presented to the Legislature, 9th April, 1919. *Printed.*

No. 38 Report of the Dairymen's Association of Ontario, for the year 1918. Presented to the Legislature, 9th April, 1919. *Printed.*

No. 39 Report of the Live Stock Associations of Ontario, for the year 1918. Presented to the Legislature, 9th April, 1919. *Printed.*

No. 40 Report of the Farmers' Institutes of Ontario. *Dropped.*

No. 41 Report of the Women's Institutes of Ontario, for the year 1918. Presented to the Legislature, 6th March, 1919. *Printed.*

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No. 42 Report of the Agricultural Societies of Ontario, for the year 1918. Presented to the Legislature, 6th March, 1919. *Printed.*

No. 43 Report of the Horticultural Societies of Ontario, for the year 1918. Presented to the Legislature, 9th April, 1919. *Printed.*

No. 44 Report of the Fruit Growers' Association of Ontario, for the year 1918. Presented to the Legislature, 9th April, 1919. *Printed.*

No. 45 Report of the Horticultural Experiment Station, Vineland Station, Ontario, for the year 1918. Presented to the Legislature, 17th April, 1919.

No. 46 Report of the Statistics and Publications Branch of Department of Agriculture, for the year 1918. Presented to the Legislature, 16th April, 1919. *Printed.*

No. 47 Report of the Bureau of Municipal Affairs for the year 1918. Presented to the Legislature, 17th April, 1919. *Not printed.*

No. 48 Report of the Temiskaming and Northern Ontario Railway, for the year 1918. Presented to the Legislature, 11th April, 1919. *Printed.*

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No. 49 Report of the Hydro-Electric Power Commission, for the year 1918. *Not presented. See No.* 57.

No. 50 Report of the Ontario Railway and Municipal Board, for the year 1918. Presented to the Legislature, 26th March, 1919. *Printed.*

No. 51 Return from the Records of the By-Elections in 1918-19. Presented to the Legislature, 12th March, 1919. *Printed.*

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No. 52 Report of the Archivist of Ontario, for the year 1918. Presented to the Legislature, 3rd April, 1919. *Printed.*

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No. 53 Report on the State of the Legislative Library. Presented to the Legislature, 26th February, 1919. *Not printed.*

No. 54 Statements of Provincial Auditor under Audit Acts. Presented to the Legislature, 26th March, 1919. *Printed.*

No. 55 Report of the Workmen's Compensation Board, up to 31st December, 1918. Presented to the Legislature, 17th April, 1919. *Printed.*

No. 56 Report of the Ontario Insurance Commission. Presented to the Legislature, 26th February, 1919. *Printed.*

No. 57 Report of G. T. Clarkson upon the Accounts of the Hydro-Electric Power Commission of Ontario. Presented to the Legislature, 4th March, 1919. *Printed.*

No. 58 Second Interim Report on Venereal Disease. Presented to the Legislature, 26th February, 1919. *Printed.*

No. 59 Return to an Order of the House of the 13th March, 1918, for a Return of the names of all Coroners, and their addresses in the City of Toronto, also the number of inquests held by each one, each year during the last five years, namely, from January 1st, 1912, until December 31st, 1918, also the amount of money each received, each year during the period named for their services as Coroners. Presented to the Legislature, 26th February, 1919. Mr. *Crawford. Not printed.*

No. 60 Return to an Order of the House of the 7th March, 1918, for a Return shewing—1. How many persons who have been convicted and sentenced to imprisonment under the Ontario Temperance Act have been discharged without completing the term for which they were sentenced. 2. How many persons fined under the said Act have had their fines or some portion thereof remitted. Presented to the Legislature, 26th February, 1919. Mr. *Munro. Not printed.*

No. 61 Return to an Order of the House of the 18th March, 1918, for a Return shewing—1. What number of accidents have been reported to and dealt with by the Workmen's Compensation Board for accidents caused to workmen engaged in Munition Plants. 2. What amount do the manufacturers of munitions pay in comparison to the amount paid by other manufacturers. 3. Is the amount based on a percentage higher than on manufacturers of a somewhat similar character so as to provide for the possibility

of munition factories ceasing to operate within the near future and yet have large claims left to be provided for. Presented to the Legislature, 26th February, 1919. Mr. *Richardson. Not printed.*

No. 62 Return to an Order of the House of the 13th March, 1918, for a Return shewing copies of all communications and correspondence between the Attorney-General, J. H. Rodd, Crown Attorney for the County of Essex, Dr. St. Pierre and H. C. Maisonville of Windsor, Ontario, in the matter of an alleged conspiracy on the part of the said J. H. Rodd against the said St. Pierre and Maisonville in connection with the trouble which occurred at Ford City, Ontario, on or about the eighth day of September, 1917, and which led to the arrest of the said St. Pierre. Presented to the Legislature, 26th February, 1919. Mr. *Racine. Not printed.*

No. 63 Return to an Order of the House of the 21st March, 1918, for a Return of the copies of—1. All correspondence between the Minister of Lands, Forests and Mines, or any member, officer or official of the Government, and the firm of F. McGibbon & Sons, Lumber Merchants, Sarnia, or the firm McGibbon Lumber Company, of Penetanguishene, in reference to the renewal of the license granted to the last named company to cut timber on Franklin Island, in Parry Sound. 2. Copy of the original agreement with the McGibbon Lumber Company, of Penetanguishene, in which the said company was given the right to cut pine timber on the said island. 3. Copy of the license and renewals (if any) granted to the said McGibbon Lumber Company. 4. Copy of the agreement made with the license granted to the Hope Lumber Company of Thessalon, Ontario (now owned by White, Gratwich & Mitchell on Garden River), about the same time; and copies of all correspondence between the said Hope Lumber Company or White, Gratwich & Mitchell and the Government or any officer or official thereof in reference to the sale of timber to either company. 5. Copies of the renewals of licenses to the Hope Lumber Company or White, Gratwich & Mitchell (if any). 6. The date when the license to the McGibbon Lumber Company was cancelled. 7. How the money derived from the said license was expended. 8. The number of licenses which have been renewed during the present year in the District of Parry Sound, and in whose names these licenses stand. Presented to the Legislature, 26th February, 1919. Mr. *Proudfoot. Not printed.*

No. 64 Copies of Regulations and Orders-in-Council under Section 27 of the Department of Education Act. Presented to the Legislature, 3rd March, 1919. *Not printed.*

No. 65 Report of the Ontario Housing Committee, including standards for inexpensive houses adopted for Ontario with typical plans. Presented to the Legislature, 4th April, 1919. *Printed.*

No. 66 Regulations of the Provincial Board of Health *re* Communicable Diseases approved by His Honour. Presented to the Legislature, 20th March, 1919. *Not printed.*

No. 67 Return to an Order of the House of the 24th March, 1919, for a Return shewing:—1. How much money has been spent in connection with the soldiers' land settlement scheme at Kapuskasing. 2. How many acres have been cleared for crop; and what other improvements have been made, and by whom. 3. How many soldiers availed themselves of the opportunity afforded by the scheme. 4. How many soldiers are still there. 5. At what price *per* acre is this land available. Presented to the Legislature, 3rd April, 1919. Mr. *Bowman (Manitoulin).* *Not printed.*

No. 68 Return to an Order of the House of the 24th March, 1919, for a Return shewing:—1. How many Crown Land Agencies exist in the Districts of Muskoka and Parry Sound. 2. What are the names of the agents and dates of appointment. 3. What is the remuneration paid to each agent. 4. What are the duties of the agents. Presented to the Legislature, 3rd April, 1919. Mr. *Proudfoot.* *Not printed.*

No. 69 Return to an Order of the House of the 7th March, 1919, for a Return shewing if:—1. General Manly Sims had been appointed Agent-General for Ontario, at London, England. If so, at what date. 2. What is his age, and what period of time has he ever spent in Ontario, and in what employment. 3. Is he a native-born Canadian. 4. Is he a British or Canadian Officer. 5. If the former, why was not some qualified Canadian Officer from Ontario appointed to fill the Post. 6. Were any Canadian Officers applicants or recommended for the position, and if so, what were the names of such Officers and on what grounds was each respectively refused. 7. Was the appointment made upon the recommendation of the Civil Service Commissioner of Ontario. 8. What is the salary or remuneration that the Province of Ontario pays to General Sims, and what perquisites, if any, in addition to his salary does he receive. 9. Is the appointment a permanent one, or if not, for what period and on what terms as to time of service. Presented to the Legislature, 3rd April, 1919. Mr. *Dewart.* *Not printed.*

No. 70 Return to an Order of the House of the 24th March, 1919, for a Return shewing:—What are the details of the receipts by Corporations of the Provincial taxes included in the Revenue of the Department of Lands, Forests and Mines for the year end-

ing October 31st, 1918, at page *a*32 at the sum of $863,457.75. Presented to the Legislature, 3rd April, 1919. Mr. *Pinard*. *Not printed.*

No. 71 Return to an Order of the House of the 4th day of April, 1919, for a Return shewing:—1. What is the total amount of the grants withheld from the Roman Catholic Schools of Ottawa. 2. In what years were such grants withheld. 3. What amount was withheld in each respective year. 4. Has the money for grants withheld from the Roman Catholic Separate Schools of Ottawa been kept in a separate fund. 5. Have these amounts been revoted in any succeeding session of the Legislature. Presented to the Legislature, 10th April, 1919. Mr. *Pinard*. *Not printed.*

No. 72 Report of the Civil Service Commissioner, 1918. Presented to the Legislature, 10th April, 1919. *Printed.*

No. 73 Return to an Order of the House of the 24th March, 1919, for a Return of:—1. Copies of all documents covering the original sale to one J. J. Carrick, of the City of Port Arthur, of certain pulpwood limits in the Pic River and Black Sturgeon River Districts of Thunder Bay. 2. Copies of all agreements connected therewith or supplementary thereto. 3. Copies of all letters and telegrams which passed between the Government or any member or official thereof and the said Carrick or any one on his behalf, in reference to the said limits.—Presented to the Legislature, 15th April, 1919. Mr. *Proudfoot*. *Not printed.*

No. 74 Return to an Order of the House of the 4th March, 1919, for a Return shewing what building it is proposed to cover by insurance out of the following items appearing in the Supplementary Estimates for the fiscal year ending October 31st, 1919:—(*a*) $4,000.00, Item No. 1, Vote No. 187; (*b*) $1,000.00, Item No. 9, Vote No. 191. Presented to the Legislature, 15th April, 1919. Mr. *Pinard*. *Not printed.*

No. 75 Report of the Bureau of Municipal Affairs *re* Housing, including Acts, Rules and Regulations, Housing Standards, Provisions and Forms for 1919. Presented to the Legislature, 15th April, 1919. *Not printed.*

No. 76 Return to an Order of the House of the 28th March, 1919, for a Return shewing all correspondence between any Department of the Government or Minister, or Official, and the British America Nickel Corporation, Limited, or any Official or Director thereof or person representing the said Company, regarding the refining of Nickel or other Minerals by the said Company, the establishment of a Refinery or other works and the location of the same in Ontario, and as to the location of the Refinery where

	it is now being erected in the Province of Quebec, and all documents relating in any way thereto. Presented to the Legislature, 15th April, 1919. Mr. *Dewart*. *Not printed.*
No. 77	Copies of Orders-in-Council designating the Convalescent Home for Women, Ottawa, and the Salvation Army Women's Hospital, Bloor Street East, Toronto, as Hospitals to which aid may be granted pursuant to Section 14 of The Hospitals and Charities Institutions Act. Cap. 300, R.S.O., 1914. Presented to the Legislature, 17th April, 1919. *Not printed.*
No. 78	Report of the Soldiers' Aid Commission. Presented to the Legislature, 17th April, 1919. *Not printed.*

REPORT

OF THE

Minister of Public Works

FOR

PROVINCE OF ONTARIO

FOR THE

TWELVE MONTHS ENDING 31st OCTOBER

1918

PRINTED BY ORDER OF

THE LEGISLATIVE ASSEMBLY OF ONTARIO

TORONTO

Printed and Published by A. T. WILGRESS, Printer to the King's Most Excellent Majesty

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To His Honour, Sir John Strathearn Hendrie, K.C.M.G., C.V.O., a Colonel in the Militia of Canada, etc., etc., Lieutenant-Governor of the Province of Ontario.

Sir,—I have the honour to submit to you, as required by Statute, the Annual Report on the works under the control of the Public Works Department, comprising the Reports of the Deputy Minister, the Architect, the Engineers, the Superintendent, and the Accountant of the Colonization Roads Branch, and the Accountant and Law Clerk, for the twelve months ending the 31st of October, 1918.

I have the honour to be, Sir,

Your obedient servant,

F. G. Macdiarmid,

Minister of Public Works and Highways.

Department of Public Works, Ontario,
March 17th, 1919.

REPORT

OF THE

Deputy Minister of Public Works

TORONTO, March 13th, 1919.

HONOURABLE F. G. MACDIARMID, *Minister of Public Works and Highways, Ontario.*

SIR,—I have the honour to transmit the Annual Reports of the Provincial Architect, the Provincial Engineer and the Superintendent of Colonization Roads; also the statements of the Accountant of the Public Works Department, the Accountant of the Colonization Roads Branch and the Secretary and Law Clerk Public Works Department. These Reports give in detail the works carried out by the Department during the fiscal year ending the 31st October, 1918.

The activities of the Department of Public Works during the long period of the war have been retarded in order that the men and the money that would be employed in erecting government buildings and public works might be turned into channels having a direct war current. Happily the war is over and the men are returning rapidly to take up their peaceful occupations again and the buildings and public works so much needed can be proceeded with. The most urgent are additional accommodation for the Departments of Government, almost every department in the service needs additional space. The Hospitals for insane, for epileptics and for feeble-minded have inadequate accommodation for those requiring hospital care. Buildings in the interest of agriculture and education are urgently needed. To meet the demands for office accommodation the premises known as the Bryant Press Building on Richmond Street West were purchased and are being fitted up as offices. All the branches in charge of the motion picture activities of the Government will be housed therein. The Motion Picture Bureau who make films of an educational character showing the work of the different Departments of Government; the Board of Censors; the Inspector of Motion Picture Theatres and operators; and the Amusement Tax Officers will have very fine accommodation in this building. There will also be space for other Government Officers, the building has four floors and basement giving forty-two fine offices.

The principal building operations for the fiscal year 1917-18 were carried on at Whitby, Orillia, Burwash and Kemptville, continuing the works that were under construction at those places. At Whitby sixteen cottages, two kitchens and dining rooms, two large infirmary buildings, an amusement hall, doctors' residence have been completed, also a power house of sufficient capacity to serve the entire group of buildings designed for the complete hospital scheme at Whitby. These buildings are still occupied as a Military Hospital by the Invalided Soldiers' Commission. At Orillia work has progressed on the reconstruction of the laundry and boiler house, the coming season will see the completion of the work of reconstruction of the kitchen, laundry and storehouse, when the Institution will have a fine group of buildings well equipped for the care of such feeble-minded persons as need institutional care and special treatment. At Burwash Industrial Farm the camps for the housing of the men have been improved and extended, additional houses

for guards, teacher and head farmer have been erected. At Kemptville Agricultural School a fine stock judging pavilion with good auditorium is nearing completion, and fine farm buildings were erected.

There was expended by the Engineer's Branch upon the construction and repair of locks, dams, bridges, dredging and drainage of roads the sum of $195,408.13 of which $50,613.71 was for maintenance, locks, dams and bridges a full list of the works charged to the general vote for maintenance is given in the Engineer's report. In addition to 101 bridges repaired, 91 new structures were erected, of which 31 were permanent reinforced concrete and steel structures, 2 timber on masonry foundations and 58 timber construction throughout.

The total expenditure on Colonization Roads for the year was $268,415.38, of this sum $183,230.90 was spent on roads, the whole cost of which was borne by the Government and $85,184.48 was upon roads on which an equal amount was spent by the local municipalities in addition to the government aid. 77.48 miles of new roads were constructed, 1,229.51 miles of old roads were improved, 75 bridges were built and 1,326 culverts were laid. The scarcity of labour, the high cost of supplies and the excessive rainy weather during the latter part of the season in the Eastern and North-Eastern part of the Province, added to the cost of the work and prevented the accomplishment of as much work as had been expected.

All of which is respectfully submitted,

R. P. Faibbairn,

Deputy Minister of Public Works.

REPORT OF ARCHITECT.

HON. F. G. MACDIARMID, *Minister of Public Works.*

SIR,—I have the honour to submit my Annual Report for work done by this Branch of your Department for the year ending October 31st, 1918.

DEPARTMENTAL BUILDINGS.

Repairs have been attended to in connection with the Parliament Buildings, including painting some of the rooms in North Wing. Some slight alterations have been made in the North Wing by adding small rooms at the end of the corridors in the basement and upper floor.

Repairs have been attended to at the Ontario Provincial Laboratory No. 5 Queen's Park, and a small ice refrigeration plant has been installed by the Linde Canadian Refrigeration Co., Limited, of Toronto and is giving satisfaction.

Repairs have also been made to No. 15 Queen's Park, occupied by the Trades and Labour Branch of this Department. The residence at No. 17 Queen's Park was purchased by the Government, repaired, renovated throughout and fitted for office building, and is now occupied by the Forestry Branch of the Lands and Mines Department.

Nos. 42-44-46 Richmond Street West, known as the "Bryant Press Building" was purchased by the Government and is now being converted into an office building. The building is four stories in height with a frontage of 68 ft. 7 inches by a depth of 94 ft. will be approached by an entrance in the centre with marble walls and steps, a cross corridor will extend from east to west with a corridor on each side extending northward. The two upper floors have been designed to accomodate the Moving Picture Board of Censors, with offices and projection room on this floor. Another projection room has been provided on the first floor. The machine room in connection with both projection rooms being fireproofed. The remainder of the building is divided suitably for Departmental offices, with ample lavatory accommodation, and fitted up with marble and sanitary plumbing. Will be steam heated using the old boilers. The work is being done under contract by Mr. T. V. Gearing. The building should be fully completed and ready for occupation by February 1st and when completed will be an up to date office building.

HOSPITALS FOR THE INSANE.

The Power House, Heating and Electric plants at the Hospital for Insane, Hamilton, were completed early in the year, all of which are giving entire satisfaction.

The Industrial Building at the Hospital for Insane, Kingston, is being remodelled, the construction work being done by Mr. R. N. F. McFarlane, contractor, of Kingston. The plumbing and heating by the Provincial Secretary's Department.

A large amount of work has been done at the Hospital for Feeble Minded, Orillia, during the past year. The laundry building is completed and is now in operation, the machinery from the old laundry has been set up in the new building and additional machinery is being installed as necessary. The interior of the old boiler house, laundry and store has been taken down as also the large water tower and tanks and the materials used in the reconstruction of this part of the building, which has been designed to accommodate the Bakery formerly located in the basement, new store, and Storekeeper's office, cold storage, Butcher shop and Dormitory

for Attendants over the Bakery. The store will give nearly double the accommodation of the old store. The receiving room and Storekeeper's office are located on the ground floor, the general store being immediately over the same on the upper floor with connecting elevator and staircases. The butcher shop adjoins the store with a refrigerator off same. The cold storage plant is located at the end of the store building and consists of three large refrigerators and butcher shop in the lower part, with ice storage over the whole of the upper part, with a capacity sufficient to hold enough ice to last for the entire season. This work was done under contract by the Eureka Refrigerator Co., of Toronto, and is the largest overhead plant in this country. Provision is also made in this building for a separate lavatory for officials and patients. Re-modelling of the kitchen, which adjoins the store, will be commenced as soon as the work on the store is completed. Satisfactory progress is being made with the work and all should be fully completed by May 1st. The contract for the erection of new water tank with a capacity of 75,000 gallons for fire protection, has been awarded to the Can. Des Moines Co., of Chatham. Cement foundations for the tank have been erected by the Department, the work has been carried on under the supervision of the Engineer's Branch of this Department. This work has been delayed owing to the action of the Munitions Board, who forbade the contractors carrying on any work of any kind until their contract for Hydro Power work at Niagara Falls was further advanced. Most of the material is ready for fabrication and will be erected as soon as conditions will permit. In the meantime, until the new tank is available, arrangements have been made to use the compression tanks in the boiler house for fire protection. A new 12 inch water supply main has been laid from the Springs, from which the supply is taken, to a cement well which has been erected adjoining the Pump House, a distance of 1,700 ft. the water being carried by gravity to the well. Water is now being pumped from the well into the mains and when the tank is erected, will be pumped into the tank. The work in connection with the laying of pipe was done under the supervision of the Superintendent of the Institution with the aid of Attendant and Patients' labour.

At the Hospital for Insane, Whitby, a large amount of work has been done during the past year, including completion of Infirmary No. 2 and the second group of cottages from 9 to 16, which were completed and ready for occupation in May. A large amount of grading and laying of roads and walks was also done during the season, greatly improving the appearance and condition of the grounds. This part of the work will be continued as long as weather conditions will permit and will be resumed next season. It is proposed to carry on extensive building operations during next year, including the erection of two buildings for patients, laundry, barn and cottages for attendants. As soon as particulars are received, plans and specifications will be prepared for the work.

In connection with the Hospital for Epileptics, Woodstock, fire escape stairways have been erected in the cottages leading from the first floor and connecting to attic. A garage has also been added to the Superintendent's Residence, work, in both cases, being done by the Hospital under the supervision of the Chief Carpenter.

EDUCATIONAL.

The Consolidated School at Hudson has been completed, work was commenced on September 29th and completed by May 1st, 1918. was done under contract by Messrs. R. Wallace & Sons, of North Bay, and completed to the satisfaction of the School Board and this Department.

A single class roomed school has been erected in the Township of Carr, School Section No. 1, work being done under contract by Messrs. Jeffrey & Stevens, contractors, of North Bay.

A contract has been awarded to the same firm for the erection of a School in the Township of Casey, School Section No. 1.

Plans and specifications have been prepared for a two roomed school to be erected in Matheson.

Normal and Model Schools, Toronto.

Extensive alterations and improvements are being made to the Normal School. The large assembly hall on the upper floor in the north east angle of the building has been divided into class rooms for Chemistry and Art with chemical preparation room between them. The Assembly Hall in the front of the building has been re-seated and is now used as a large class room. The large locker room in the north-east angle of the upper floor has been altered into a class room, the lockers being removed into an old class room in the front of the building on the ground floor. Another old class room which has not been in use for some time, on this floor, has been fitted up as a library and reading room. The raised platform in the old Science room has been removed and the room converted into an ordinary sized class room, with a rest room for girls adjoining, approached by a passage way which has been placed on the east side of the class room and connected with a Women's lavatory which has been enlarged and fitted up with marble walls, partitions and up to date plumbing appliances. A Secretary's office and private lavatory for teachers has been erected in the main hall adjoining the Principal's room. Repairs have been made to the buildings as required from time to time.

Normal and Model Schools, Ottawa.

Preliminary drawings have been prepared for extensive alterations and improvements to the Normal School, including a new ventilation system. I understand the work will be proceeded with next year. The usual amount of repairs have been made to the buildings. Asphalt paving of the boys' yard has been completed and is giving satisfaction, and it is proposed to asphalt the girl's play yard in a similar manner next year, provision for same having been made in the estimates.

The usual attention has been given by the officials of the Department to the Normal Schools at North Bay, Hamilton, Stratford and Peterborough, the buildings having been kept in a good state of repair. Repairs have also been made to the English and French School at Sandwich.

The usual amount of repairs were made to the School for the Deaf, Belleville, and School for the Blind, Brantford. New steam mains were laid from the Boiler House to Boy's Dormitory at the former Institution, the work being done by men employed by this Department.

AGRICULTURE.

Ontario Agricultural College, Guelph.

Plans and specifications were prepared for an addition to the Bacteriological Building the work has been completed and the addition occupied for some time. The contract for mason and brickwork was done by S. Rundle & Son, of Guelph, and the plastering under contract by W. A. Mahoney, of Guelph. The remainder of the work, including painting and heating was done by the Engineer and Carpenter of the College, under the supervision of the Chief Carpenter. Plans and specifications have been prepared for a dormitory building to accomodate 150 students. Owing to war conditions the erection of this building has been deferred until next year.

Horticultural Experimental Station, Jordan Harbour.

The power house, greenhouses and double cottages have been completed. Owing to financial difficulties the Glass Garden Builders, who had the contract for the super-structure of the greenhouses, assigned their contract to Messrs. Lord & Burnham, of St. Catharines, who have completed the work satisfactorily. The contract for steam heating in the boiler house, administration building and Superintendent's residence, and the steam mains from the boiler house to these buildings was awarded to Purdy Mansell, Limited, of Toronto, who have left a good working plant. The heating of the greenhouses was included in Lord & Burnham's contract, which is also working satisfactorily. The boilers in connection with the heating plant were taken from the old heating plant, Hospital for Insane, Hamilton, this work was done under a competent foreman and the materials purchased by this Department.

Agricultural School, Kemptville.

The farm buildings, including horse barn, sheep building and piggery were completed early in the fiscal year and work on the stock judging building was resumed in April; present indications are that the building will be finished by December 1st. The contract for the structural work is being carried out by the Dominion Concrete Co., of Kemptville. A water works system is being installed under the supervision of the Engineer's Branch of this Department. Mains are being laid by men employed by the Superintendent of the school. The contract for plumbing and heating was awarded to Messrs. McKinley & Northwood, of Ottawa, and is a very satisfactory job. Plans and specifications have been prepared for a barn, which, I understand, will be erected next year. The electric wiring has been installed in the stock judging pavilion and Superintendent's residence by this Department.

Northern Development, Demonstration Farm, Monteith.

The residence at the Demonstration Farm, Monteith, was completed in May, the contract for plumbing and heating was done by J. R. Murphy, of New Liskeard.

The stock judging pavilion, New Liskeard, was finished in February. Contract for heating was done by Mr. T. R. Gibson, of Haileybury, who left a good working plant. The electric work was done by D. Clutchey of Haileybury, and inspected by the Electrician of this Department. Plans and specifications have been prepared for a barn to be erected at the Demonstration Farm, New Liskeard.

Ontario Veterinary College, Toronto.

Plans have been prepared for some slight alterations to this building, including harness case and remodelling of the Pharmacy. The building has been kept in good repair throughout.

DISTRICTS.

Plans and specifications were prepared for an addition to the Gaol at Parry Sound: contract has been awarded to Edwin L. White, of Parry Sound; good progress is being made with the work. The Registry Office has been re-wired and electric fixtures supplied. Repairs have also been made to the buildings, including Land Titles and Registry Office.

Considerable repairs have been made to the roof of the Court House at Kenora, repairs have also been made to the Gaol and Registry Office in that place.

Repairs have been made to the Gaol and Registry Office at Sault Ste. Marie, Algoma District, and the electric wiring of the Registry Office is completed.

Repairs have been made to the Court House and Gaol at Gore Bay, District of Manitoulin.

Electric wiring has also been renewed in the Court House and Gaol at Bracebridge, District of Muskoka. Repairs have been made to these buildings.

Repairs have been made to the Court House, Gaol and Gaoler's house and Registry Office in North Bay, District of Nipissing, including the re-shingling of the roof of the Court House and Gaol, also to the Court House, Gaol and Registry Office in Sudbury.

Industrial Farm Burwash.

A large amount of work has been done at this Institution during the past year, five cottages for attendants are neatly completed and the addition to Camp No. 1 is under construction and will be completed early next season. The work is being done by this Department under the supervision of Mr. J. M. Philip, as Inspector of Works. Electric wiring has been installed in camps Nos. 1 and 2, the work being done under the supervision of the Electrician of this Department. All of the timber for the works under construction and for works that will be constructed, is cut on the grounds by prisoners and put through our own Mill. All of the work is being done by prisoners, with the exception of the electric, plumbing and heating. The heating is being done under contract by Purdy, Mansell, Limited, of Toronto, under the supervision of M. F. Thomas, Consulting Engineer. It is proposed to erect a central heating plant at this Institution next year, plans of which are now being prepared.

The Court Houses, Gaols, and Registry Offices in the Districts of Temiskaming and Thunder Bay have also received good attention.

Inspection.

The buildings under the control of this Department throughout the Province, have been inspected from time to time, including heating, electrical work and sewage plants. The boilers under the supervision of this and the Provincial

Secretary's Departments are inspected at least twice a year by the Boiler Inspector, and reports made on the condition of same. Those under this Department are repaired, as per his recommendations and those under the Provincial Secretary's Department receive attention of the officials of that Department.

All of which is respectfully submitted.

I have the honour to be, Sir,

Your obedient servant,

F. R. Heakes,
Architect.

Toronto. October 31st, 1918.

REPORT OF ENGINEER.

HON. F. G. MACDIARMID, *Minister of Public Works and Highways, Ontario.*

SIR,—I have the honour to report on the work carried out by the Engineer's Branch of the Public Works Department during the fiscal year ending October 31st, 1918.

Following the practice of former years practically all the work accomplished was carried out under the system of day labour. Plans and specifications were prepared for each work, experienced and competent foremen were placed in charge, Engineers of the Department visited the works regularly to see that they were properly constructed. Tenders were asked for the supply of material, steel, cement, etc.

The regular foremen are now supplied with proper construction outfits, concrete mixers, pile drivers, hoists, etc. Each foreman is in a position to turn out work as economically as can the average contractor. He has no motive for skimping or slighting his work, his continued employment depends on his work, and each individual is doing his level best to turn out satsfactory work at a reasonable cost.

All works in progress at the end of the fiscal year will be continued during the favourable weather.

Owing to the scarcity of labour a number of works for which funds had been provided were held over until next season. Temporary repairs were made to make the works safe for public use.

During the year 91 bridges were constructed for which funds had been provided in the Public Works Estimates for 1917-18. Of these bridges, 31 were permanent structures, being of reinforced concrete, 2 were of timber decks on rubble masonry abutments, and 58 were timber construction throughout.

The largest and most important work constructed during the year was the Baysville Dam, completed at a cost of $13,785.00.

Owing to the continued high cost of labour and building material of all classes the expenditure on the Maintenance of Public Works and bridges far exceeded the expenditure of former years. The expenditure during the coming year is likely to exceed that of the past season.

The dredging in the Muskoka Lakes was continued during favourable weather conditions. The channels above and below the Locks at Port Carling were completed.

The channel between Portage Lake and Gordons Bay was dredged out and made navigable for small craft, giving the cottagers on Portage Lake free access to Lake Joseph. The sandbars in the Bracebridge River were removed. This completes the dredging in the Muskoka Lakes for the present.

During the winter it is proposed to move the dredge machinery to Huntsville, and install it in the Dredge Hull at that place. Next season dredging will be resumed in Marys, Fairys and Peninsula Lakes. If proper transportation facilities can be provided to move the Dredge Hull to Lake of Bays it is proposed to undertake the improvement of the navagable channels in the Lake of Bays in the near future.

The most important expenditures from the fund provided for Maintenance of Locks, Dams and Bridges were as follows:—

GENERAL.

Tools, repairs to equipment, etc.	$1,679 86	
Superintendent's office and travelling expenses	455 58	
Superintendent's disbursements, labour, freight, etc.	632 17	
		$2,767 61

NAVIGATION.

Operation of Provincial dredge	$6,390 80	
Clearing streams, booms, etc.	439 92	
		$6,830 72
Repairs to Port Carling lock, dock, etc.	$162 44	
" Huntsville lock and dam	365 64	
" Magnetawan lock	129 93	
" Ahmic dam	575 16	
" Bala dam	33 25	
" Dollars dam	209 15	
" Magnetawan dam	227 05	
Operation, Norman dam	162 35	
Repairs, Sandfield swing bridge	377 52	
Repairs, Ryerson swing bridge	182 21	
Operation, storehouse, Bracebridge	141 62	
		$2,570 32

REPAIRS AND RENEWAL OF BRIDGES.

Rainy River District:		
Frog Creek bridge	$446 26	
Bergland Road bridges	30 80	
Lash bridge, grading	208 33	
North Road bridge, Dilke	180 00	
		$865 43
Kenora District:		
Eagle River bridge	$111 47	
Pellatt Road swing bridge	645 35	
Nugget Creek bridge	84 85	
Winnipeg River boom	437 70	
		$1,279 37
Fort William District:		
Kaministiquia bridge floor	$41 50	
Pitch Creek bridge, Con. 1	228 81	
Silver Creek bridge, Con. 2	27 55	
Silver Creek bridge, Con. 3	111 76	
		$409 62
Soo District:		
Dean Creek bridge	$111 48	
Goulais bridge	61 50	
Hills bridge	135 00	
Magpie bridge	2,081 86	
Root River breakwater	147 90	
Wawa bridge	118 25	
		$2,655 99
Algoma District:		
Black Creek bridge, Plummer	$1,482 67	
Dausey bridge floor	113 16	
Dunn Creek bridge	525 50	
Dynes bridge, Johnston	149 50	
Iron bridge floor	47 64	
Krings bridge, Victoria	119 60	
Lefroy bridge	101 60	
Little Serpent bridge, Victoria	290 51	
McCarrell's bridge grade	412 50	
Mississauga bridge floor approaches	433 42	

Montgomery bridge, Thessalon River	$2,078 90	
Mud Creek bridge, Bright	58 25	
Potomac bridge, Gladstone	258 02	
Tunnel bridge floor	182 00	
Victoria bridge, Sec. 34	170 44	
Wanamaker bridge, Galbraith	172 15	
		$6,595 86
Manitoulin District:		
Espanola bridge piers	$4 402 69	
Indian Point bridge approaches	73 72	
		$4,476 41
Sudbury District:		
Blezard bridge, Con. V	$37 50	
Finn bridge, Waters, grading	363 43	
Hagar bridge, 8 abd., 9 sideline	116 70	
Hagar siding bridge	1,094 72	
Lumsden Culvert, South Boundary	296 40	
		$1,938 75
Sturgeon Falls District:		
Badgerow bridges	$301 64	
Brule Creek bridge, Springer	280 95	
Cache Creek bridges	1,068 56	
Casimir bridge, Lots 3 and 4	39 00	
Deer Creek bridge, Con. 4, Ratter	39 20	
Deer Creek bridge, Con. 2, Ratter	100 50	
Gagne bridge, Field	886 30	
Kirk bridge, Con. 1	19 60	
Lafferty bridge	42 00	
Loughrin bridge	75 00	
Murdock bridge	27 00	
North Boundary bridge, Lot 8, McPherson	248 16	
Smoky Falls bridge	40 65	
South Branch bridge, Appleby	1,240 76	
Sturgeon bridge Gibbons	180 00	
Temagami bridge grading	136 00	
		$4,725 32
Temiskaming District:		
Hilliardton bridge	$191 70	
Casey Brethour bridge	102 04	
Chester bridge	146 37	
Wright's Creek bridge	347 44	
		$787 55
Nipissing District:		
Eau Claire bridge floor	$162 87	
Lavasse Creek bridge, Con. 13, Ferris	766 52	
Moore's Creek bridge, Lyell	1,579 75	
Poverty Creek bridge, Avery	33 46	
Whitney bridge floor	213 53	
		$2,756 13
Parry Sound District:		
Ahmic dam bridge	$60 75	
Broad River bridge, Humphrey	1,391 70	
Broadbent bridge	131 08	
Distress bridge, Magnetawan	110 85	
Gurd bridge, 30 sideline	139 02	
Manitowaning bridge, McKellar	114 40	
Simpson's bridge, Sand Lake	1,436 33	
South River bridge, Joly-Laurier, T. L.	1 360 00	
Squaw Lake bridge	129 60	
Whitestone bridge	80 59	
		$4 954 23

Muskoka District:		
Bala bridge floor	$302 10	
Dorset bridge floor	114 40	
		$416 50
Victoria and Haliburton:		
Drinkwater Creek bridge, Glanmorgan	$124 00	
Head River bridge, Digby	250 00	
Glanmorgan bridge, Con. V	81 15	
Otter Lake bridge, Monmouth	249 30	
Stormy Lake bridge	195 50	
Symons bridge floor	190 30	
		$1,090 25
Hastings Bridges		
Alder Creek bridge, Carlow	$208 49	
Cooper Creek bridge	61 00	
Maxwell bridge, Mayo	166 54	
Moore Creek bridge, Herschell	56 74	
Papineau Creek bridge grade	145 60	
York Branch bridge, painting steel	149 25	
		$787 62
Addington District:		
Cole Creek bridge	$180 00	
McLaren Creek bridge, Snow Road	219 61	
Quackenbush Creek bridge	100 20	
		$500 63
Renfrew District:		
Butler bridge, Bonnechere River	$305 43	
Calabogie bridge	426 36	
Coburn bridge, Indian River	343 00	
Combermere bridge grade	81 00	
Davis Mills bridge, Indian River	427 30	
Ferguson Lake bridge	201 25	
Le Clair bridge grading	163 00	
McMahon bridge, Mattawachan	86 48	
Moore Creek bridge, Admaston	100 00	
Raglan bridge, Con. 12	42 75	
		$2,176 57

Road drainage in the Northern Districts was continued under difficulties. The high cost and scarcity of labour restricted the work undertaken and an excessively wet fall further interfered with the prosecution of the work.

Lockmasters' Reports.

The following are the reports from the lockmasters of the business done at the different locks during the navigation season:

Magnetawan Lock.—540 steamers, 183 small boats, 193 scows, 287 rafts.

Huntsville Lock.—134 steamers, 467 small boats, 27 scows, 119 rafts.

Port Carling Lock.—3,510 steamers, 313 small boats, 458 scows, 38 rafts.

WORKS CONSTRUCTED UNDER SPECIAL APPROPRIATIONS.

Rainy River District Bridges.

Burriss Bridge, 8-9 Sideline.—A timber bridge over the west branch of the LaValle River, located between Lots 8 and 9 in the 1st Concession of Burriss. It is a pile trestle bridge 66 feet long, with a centre king truss span 34 feet long. The approaches are well graded. Total cost, $800.00.

Carpenter Bridges (No. 1).—Over a small creek on the line between Lots 5 and 6, Concession 6. It is a pile trestle 18 feet long.

(No. 2) Is over a creek on the line between Lots 4 and 5, Concession 5. The bridge is a 3-span pile trestle, 45 feet long. Cost of both bridges, $595.00.

Devlin Bridge, Section 4.—A timber bridge 68 feet long located on the townline between Devlin and Woodyatt over the LaValle River. It is a pile trestle bridge with a centre span of 34 feet supported by a king truss. The approaches are well graded. Cost, $850.00.

East Pine Bridge, Sections 27 *and* 28, *Patullo.*—Located over the East Branch of the Pine River on the road between Section 27 and 28. It is a pile trestle 96 feet long, provided with a centre truss span 34 feet in clear width. Total cost, $891.00.

Lash Bridge at Emo.—This is a high pile trestle bridge across a deep and wide gully on Lot 36 on the river road in the Township of Lash. The old bridge was 280 feet long, and the grades at each side were very steep. The bridge as reconstructed is 220 feet long. The grades at each of the gully were cut down and the material used in filling in 60 feet of the old bridge at the west end. All defective piles in the old structure were replaced and a completely new deck provided. The piles are well braced. The grades as changed, are a great improvement on former conditions. The entire cost of the reconstructed bridge was $3,222.00.

LaValle Bridge, Concession 2, *Burriss.*—A timber bridge 66 feet long located over the LaValle River on the road between Lots 8 and 9 in the 2nd Concession, Burriss. It has a centre truss span of 34 feet with approach spans of 16 feet at each end. Total cost, $800.00.

Morley Bridge, Sections 11 *and* 12.—Located over a creek on the road between Sections 11 and 12 in Morley. It is a pile trestle 45 feet long, consisting of 3 spans of 15 feet. The approaches are well graded. Total cost, $500.00.

Pinewood Bridge.—The work of repair consisted of placing a top deck of 3-inch tamarac plank 8 feet long over the entire floor of the bridge which is 190 feet long. The north end of the bridge was raised and the approach properly graded.

Worthington Bridge, Front Road.—Located at Lot 39 on the Front Road in the Township of Worthington. The bridge is a pile trestle 110 feet long and about 15 feet in height. The bridge was completely renewed. Cost, $992.00. All the bridges in the Rainy River District were constructed under the direction of Frank Clement, Road Inspector for the district.

Kenora District Bridges.

Black Sturgeon Bridge, Concession 1, *Mellick.*—Located over the Black Sturgeon River on Lot 5, Concession 1, Mellick, the bridge is a pile trestle 350 feet long with a roadway 14 feet in clear width. The floor is 22 feet above the

bottom of the stream. The piles are jack pine, caps and stringers, Norway pine, floor flatted jack pine 6 inches thick. A substantial guard-rail is in place at each side over the entire length of the bridge. The total cost of the bridge was $1,800.00.

Eagle River Bridge.—This bridge, located at Eagle River Falls, was repaired by rebuilding piers, placing new bents under the approaches at each end and providing 3 new needle beams for the truss span with new braces, providing new floor stringers for the truss span, and also placing a new floor of 3-inch pine plank 16 feet long on each truss span. The approach at each end was well graded, and a substantial guard railing provided. Cost of work, $818.00.

Burnt Creek Bridge, Wainwright.—Located over Burnt Creek at Lot 3, Concession 4, in the Township of Wainwright. The bridge is 36 feet long, including approaches. It is built on timber crib abutments. The stringers and cover are of flatted jack pine. Cost, $141.00.

These bridges in the Kenora District were built under the direction of James Fraser, Public Works foreman.

Thunder Bay District Bridges.

Brule Creek Bridge, Conmee.—Located over Brule Creek at Lot 6 on the 5th Concession Road, Conmee. A timber bridge 22 feet long. The abutments are cedar cribs; the stringers and floor are flatted cedar. The approach to each end of the bridge is built up to a height of 6 feet. Total cost, $501.00.

Dawson Road Bridge, Sunshine.—Located over the Mattawin Creek at Lot 40 in the Dawson Road Range in the Township of Conmee. It is a timber bridge 60 feet long. It has a timber crib abutment at the east end; a centre pier 8 feet wide built on a ledge of rock and a timber bent for support on the east end. The main span over the channel has a clear width of 30 feet and is supported by a king truss built of heavy timber. The east span is 15 feet in clear width. The west approach is built up of gravel, and the east approach is rock-filled. Total cost, $385.00.

Pitch Creek Bridge, Marks.—Located over Pitch Creek on the road between Lots 2 and 3 in the 2nd Concession of Marks. The bridge is supported on pile timber abutments. It has a clear width of 28 feet. The floor is supported by a king truss of heavy timber. The approaches are built up for a length of 100 feet at each end of the bridge. Total cost, $348.30.

Oliver Townline Bridge.—Located over a creek on the townline between Oliver and McIntyre in the 7th Concession of Oliver. The bridge has a clear span of 15 feet. The work consisted of placing a new deck on the old timber abutments. The old abutments were raised 2 feet and the approaches built up to the new level. Cost, $108.00.

The work in the Thunder Bay District was all done under the direction of John McNee, Road Inspector for the District.

SAULT STE. MARIE DISTRICT BRIDGES.

Black Creek Culvert.—Located over Black Creek on the Garden River Road in the Rankin Location. It is a reinforced concrete box culvert 30 feet long, 6 feet high, and 7 feet wide inside measurement. The bottom and side walls are reinforced with half-inch square twisted bars at 12-inch centres. The cover is a flat slab 12 inches thick, reinforced with longitudinal and transverse bars $\frac{5}{8}$ inch square placed at 12-inch centres. The side walls are 2 feet wide at the bottom and 12 inches at the top. Wing walls 7½ feet long are placed at each corner. The fill is 6 feet in height over the top of the culvert and has a top width of 18 feet. Total cost, $1,291.00.

Brissette Bridge.—Located over a creek on the road north of Section 27 in the Township of Korah. It is a concrete bridge with a clear span of 20 feet, with a roadway 14 feet in clear width. The abutments are 13 feet 6 inches in height to the floor level. The floor is a reinforced concrete slab 6 inches thick, supported by 4 reinforced beams 18 inches deep and 14 inches wide. The railing consists of molded concrete posts supported by a top rail 9 inches wide and 6 inches deep. The top rail is reinforced with half-inch bars placed each side of the posts. The main posts supporting the railing are placed at each corner of the bridge and are 15 inches square reinforced with four $\frac{5}{8}$-inch bars. The beams are reinforced with 4 bars one inch square. The floor is reinforced with $\frac{5}{8}$-inch bars at 8-inch centres transverse and 9½-inch longitudinal bars. All reinforcing bars are square twisted. The floor of the bridge was raised to bring the road up to the proper level.

C. Wall Bridges.—Located over the Carp River on the road West of Section 34 in the Township of Prince. It is a concrete beam bridge with a clear span of 20 feet. The abutments are 16 feet in height to the floor level, and are supported on pile foundations. The fill at the north end of the bridge is 90 feet long and averages 10 feet in height. Total cost of bridge and fill, $2,311.00.

Couderet Bridge.—Located over the Little Carp River on the road west of Section 5 in the Township of Awenge. It is a concrete beam bridge with a clear span of 25 feet. The beams are reinforced with five one-inch bars. The abutments are 9 feet in height to the floor level, and rest on pile foundations. Cost of bridge complete, $1,926.00.

Hill Bridge.—Located over a branch of the Carp River on the road north of Section 35 in the Township of Prince. It is a concrete beam bridge with a clear span of 12 feet. Cost of bridge, $1,291.00.

McNarr Bridge.—Located over the Carp River on the road west of Section 35 in the Township of Prince. It is a concrete beam bridge with a clear span of 20 feet. The abutments rest on pile foundations and are 12 feet in height to the floor level. Total cost, $1,770.00.

Smith Bridge.—Located over the Carp River on the townline between Parke and Awenge. It is a concrete beam structure with a clear span of 25 feet. The abutments are 17 feet in height to the floor level and are supported on pile foundations.

Stewart Bridge.—Located over a creek in the road north of Section 28 in the Township of Korah. It is a concrete beam structure with a clear span of 20 feet. The abutments are 9 feet in height to the bridge floor, and rest on a firm gravel bottom. The floor level was raised to bring the road to a better grade. Cost of bridge, $1,191.00. All the bridges in the Soo District were built by S. W. Butt, Foreman Public Works.

ALGOMA DISTRICT BRIDGES.

Anderson Creek Bridge, Tarbutt.—Located over Anderson Creek on the road between Lots 4 and 5 in the 1st Concession of Tarbutt. It is a reinforced concrete beam bridge with concrete pile abutments. The floor is a 6-inch slab supported by 4 reinforced beams 18 inches deep and 14 inches wide. The beams rest on the heads of concrete piles 15 feet long, 14 inches square at head and 8 inches square at the point. The piles are reinforced with rods ¾ inch square wound with No. 7 annealed wire. The beams are reinforced with 4 1-inch square bars, and the floor reinforced with ⅝-inch bars. The railing is of moulded concrete posts. At each end of the bridge is a fill of stone, taking the place of abutments. A heavy fill was required at each end of the bridge. S. Cole was foreman in charge of construction. Cost of bridge, $1,486.00.

Front Bridge, Massey.—Located over a creek on the Front Road through the broken Front of Salter. It is a pile trestle bridge 30 feet long—two spans of 15 feet. The stringers and floor are of flatted cedar. A substantial guard railing is in place on each side of the bridge. Cost, $270.00.

McCarrells Creek Bridge.—Located over McCarrells Creek on Meredith-McDonald boundary near the south-west corner of Section 30, Meredith. The bridge has a clear span of 20 feet. It comprises a reinforced beam deck on rubble masonry abutments. The abutments are 13 feet in height to the bridge seat. A very heavy fill was placed at each end to replace the old timber trestle. Walter Robinson was foreman in charge. Cost of bridge, $1,658.00.

Montgomery Bridge, Thessalon River.—Located over the Thessalon River at Lot 1, in the 1st Concession of McMahon. The bridge comprises a 60-foot timber truss on rubble masonry abutments. The abutments are 10 feet in height to the bridge seats. The masonry is set in cement mortar and is a high class work. An extensive fill was required to fit the grades to the new bridge. Walter Robinson was foreman in charge. Cost of bridge, $3,664.

Patton Bridges.—No. 1. Marsh bridge. This bridge is 90 feet long. The repair consisted of placing a new floor of pine and cedar. A new railing and wheel guards were also provided. Two defective stringers were replaced, and the approaches were properly graded. James Barkley, Road Inspector, was in charge of the work. Cost of repairs, $312.00.

No. 2. Third Concession Culvert.—Located at Lot 11 on the 3rd Concession of Patton. A reinforced box culvert 32 feet long. Height, 6 feet, width, 7 feet inside measurement. Wing walls are supplied at each corner. The fill, 6 feet in height above the top of the cover. Walter Robinson was foreman in charge. Cost of culvert, $1,007.00.

Portlock Bridge.—Located over the Portlock River near Portlock Station, on the road south of the railway. The bridge is a concrete pile trestle 59 feet long with 14 foot roadway. The centre span has a clear width of 25 feet, and each end span has a clear width of 15 feet. The four beams over the centre span are 2 feet deep and 14 inches wide, reinforced with six bars one inch square twisted. The beams in the end spans are 15 inches deep on 12 inch wide, reinforced with 4 bars one inch square twisted. Four bents of 4 concrete piles support the deck. The piles are 20 feet long, 14 inches square at the head and 8 inches square at the point. The piles are reinforced with four ¾-inch square twisted bars. The bars are wound with No. 7 annealed wire. The floor is a concrete slab 6 inches thick reinforced with ⅝-inch bars. The railing consists of reinforced concrete posts placed at 4 foot centres, with a top and hub rail throughout. The bridge has a clear height of 4 feet above high water level. A very heavy fill was placed at each end to bring the road grade to the level of the bridge. The Township of Johnson furnished the gravel for the concrete. Sam. Cole was foreman in charge of construction. Total cost, $2,940.00.

Pickerel Creek Bridge.—Located over Pickerel Creek on the road between Lots 2 and 3 in Bright Additional. It is a reinforced beam bridge with a clear span of 20 feet. The abutments are of concrete and are 11 feet in height to the floor level. The railing consists of moulded posts with a reinforced top rail 9 inches wide and 6 inches deep. Walter Robinson was foreman in charge. Total cost of bridge, $1,465.00.

Second Line Bridge, Plummer.—Located over a water course at Lot 3 on the 2nd Line of Plummer. It is a reinforced arch culvert 26 feet long, 7 feet 6 inches high and 4 feet wide, inside measurement. The fill is 4 feet 6 inches in height above top of culvert. Walter Robinson was foreman in charge. Cost of work, $615.00.

Manitoulin District Bridges.

Black Creek Bridge, Louise.—Located over Black Creek on the 5-6 sideroad in the 1st Concession of Louise. A timber bridge with a 20-foot clear span. Abutments are timber cribs; stringers flatted cedar; floor, flatted Norway pine. The approaches are well graded. Cost, $101.00.

Collins Creek Bridge, Howland.—Located over the Collins Creek on the 5 and 6 sideline, Concession 11, Howland. The abutments are of rubble masonry set in cement mortar. The stringers are of flatted cedar and floor of 4-inch cedar plank. The approaches required 500 cubic yards of filling, and are top dressed with gravel. Total cost. $406.00.

Manitou Bridge, Concession 2, Tehkummah.—Located on the 20 sideline in the 2nd Concession of Tehkummah. This season's work comprised the completion of the bridge started last season. The grading of the approaches was finished and the roadway gravelled. Two hundred feet of guard rail was placed at each side of fill and bridge. Cost of work, $189.00.

Manitou Bridge, Concession 3, Sandfield.—Located over the Manitou River on Lot 7, in the 3rd Concession of Sandfield. The bridge consists of a timber deck

on concrete abutments. The old abutments were raised 18 inches. The span is 30 feet clear. A king truss supports the floor. One hundred cubic yards of fill was placed in the approaches, which are to be completed by the Township. Cost of work, $317.00.

Mindemoya River Bridge, Concession 2, Carnarvon.—This work consisted of placing a new timber deck on the old bridge. Cost, $114.00.

Runnell's Creek Bridge, Concession 6, Barrie Island.—Located over Runnell's Creek at Lot 6, Concession 6 Road, Barrie Island. The bridge has a 10-foot span and consists of a timber deck on rock abutments. The approaches are well filled with rock and clay, and the roadway gravelled. Total cost, $100.00.

Silver Creek Bridge, Concession 13, Robinson.—Located over Silver Creek on the 20 sideline, in the 13th Concession of Robinson. A timber deck on timber crib abutments. Span 10 feet. Total length 22 feet. Stringers, floor and railing all flatted cedar. Structure all well drift-bolted. Cost, $214.00.

Spry Creek Bridge, Bidwell.—Located over Spry Creek on Lot 30 in the 2nd Concession of Bidwell. A timber deck on rock abutments. Clear span 10 feet. Seven lines of 8-inch flatted stringers support a floor of 4-inch cedar plank. The approaches are well graded and gravelled. Cost of work, $194.00.

Wood Creek Bridge, Concession 5, Gordon.—Located over Wood Creek on the 8 and 9 sideline, through the 5th Concession of Gordon. The old abutments and stringers are in good condition. A new king truss was placed and a new floor of 3-inch cedar plank was laid. The approaches were properly graded and gravelled. Total cost, $59.00.

All the bridge work in the Manitoulin District was done under the direction of John McAnsh, Road Inspector for the District.

Sudbury District Bridges.

Finn Settlement Bridge.—Over a creek on the Colonization Road through Lot 5 in the 3rd Concession of Waters Township. It is a pile trestle bridge 65 feet long. The centre span is 20 feet, and the approache spans 15 feet each. Five lines of 10-inch flatted cedar stringers support a floor of 5-inch flatted cedar. An extension fill was required to properly build up the approaches. A. L. McDonald was foreman in charge. Cost of work, $963.00.

Hanmer Townline Culvert.—Located over the Hanmer Creek drain on the townline between Hanmer and Rayside. The bridge has a span of 20 feet; the side walls are pile bents, 6 piles to each bent. The 6 lines of stringers rest on the piles and are drift-bolted. The floor is of 2-inch pine plank. The railing is of 4 inch by 4 inch posts with top and hub rail. The bridge was raised 2 feet higher than the old bridge, and the approaches were properly graded to the new level.

Lumsden Culvert.—Located over a creek at Lot 1 on the townline between Lumsden and Rayside. It is built after the same plan as the Hanmer Culvert above described. Cost of both works, $762.00. The work was done under the direction of A. L. McDonald, Public Works Foreman.

Sturgeon Falls District.

No work was done under special appropriation. Bridges for which funds were provided will be constructed during the coming winter.

Temiskaming District Bridges.

Charlton Bridge.—Located over the Blanche River immediately below the dam in the Town of Charlton. The bridge consists of a reinforced concrete deck on concrete abutments. It consists of three spans—a centre span of 20 feet and two end spans of 18 feet 6 inches each. The two centre piers are placed in line with the piers of the dam. The piers are 7 feet 6 inches in height to the bottom of the deck beams. The floor is a 6-inch concrete slab reinforced with ⅝-inch bars. The 4 beams which support the floor are 15 inches deep and 14 inches wide, reinforced with four 1-inch bars. The railing is a moulded slab supported by 4 main posts 12 inches by 16 inches, reinforced with ⅝-inch bars. The top railing, 9 inches by 6 inches is reinforced with ½-inch bars. The roadway is 16 feet in clear width. Wm. Lowe, Public Works Foreman, was in charge of the work. Total cost, $2,651.00.

Chester Bridge, West Road, Bucke.—Located over a creek at Chester on the West Road, in the Township of Bucke. The work consisted of rebuilding a timber bridge and making a heavy fill. Cost of work, $673.00.

Bear Creek Bridge.—Located on Lot 4 on the Harley-Dymond Townline. A jam of logs and rubbish formed at the entrance to the timber culvert constructed in 1916. The water undermined the culvert and it collapsed. The fill on the west side was carried away. The old culvert could not be utilized and the timber was salvaged as far as practicable. A pile trestle of two spans of 16 feet each was constructed to replace the culvert and fill that had been carried away. D. H. McIntosh was foreman in charge. Cost of work, $1,044.00 During the fall of 1918 the bank adjoining this trestle slid in and destroyed two bents of the trestle. A temporary road has been provided and the trestle will be restored and extended during the coming winter.

Gully Bridge, North Road.—Located over the big Gully on the 8-9 Sideroad in the 5th Concession of Dymond. The old bridge was 176 feet long with very steep grades at each end. To improve these grades the deck of the bridge was raised 11 feet 2 inches above the former height and the bridge was extended 32 feet at each end to meet the new grade. The old structure consisted of frame bents on mud sills placed at 16 foot centres. The old bents were properly levelled up and securely braced. New frame bents with four 10 inch by 10 inch posts 10 feet 4 inches long were placed on top of the old bents and securely fastened and properly braced. Two new pile bents were driven at each end, giving the bridge an overall length of 240 feet. As much of the old deck as was serviceable was used in the new deck, and new plank and stringers supplied where needed. A new railing was placed throughout. The hills at each side were cut down and the excavated earth used in building up the approaches at each end. D. H. McIntosh was foreman in charge. The total cost of the bridge and grading was $2,583.00.

High Falls Bridge, Bucke.—Located over the south branch of the Wabis River at the line of Lots 3 and 4 on the 5th Concession Road of Bucke. It is a timber trestle 60 feet long. The deck is supported by frame bents on rock bolted mud sills. The work was done under the direction of W. E. Kerr, Road Inspector. Three hundred and sixty-one dollars was expended on the work.

Wabis Bridge, Concession 3, *Kerns.*—Located over the Wabis at Lot 4 on the 3rd Line of Kerns. The work consisted of rebuilding a timber bridge under the direction of W. E. Kerr. Six hundred and sixty-one dollars was expended on the work.

Wabis Bridge at Lot 2, *Concession* 4, *Kerns.*—A timber bridge 100 feet long. It has a centre truss span of 45 feet long, an approach span of 15 feet on the east end and two approach spans of 15 feet each on the west end. The main truss rests on double pile piers 6 feet wide. The deck for the approach spans rests on pile bents driven at 15 foot centres. D. H. McIntosh, foreman in charge. Cost of work, $1,778.00.

Wabis Bridge, Lot 10, *4th Line, Kerns.*—A timber bridge 85 feet long, a centre truss span 45 feet long rests on double pile piers, 6 feet wide. Approach spans of 15 feet each are placed at each end. D. H. McIntosh was foreman in charge. Cost of bridge, $1,271.00.

Wabis Bridge, Lot 4, *Concession* 3, *Dymond.*—A timber bridge 87 feet long. The centre truss span, 45 feet long, rests on double pile piers 6 feet wide. An approach span 16 feet long is placed at each end. D. H. McIntosh was foreman in charge. Eight hundred and sixty-eight dollars was expended on the work.

Wabis Bridge, 6th Line, Dymond.—It is a timber bridge on pile piers. The centre four panel truss span 55 feet long, rests on double pile piers 6 feet wide. Two approach spans of 15 feet each are placed at each end, giving an over all length of 126 feet. Owing to a scarcity of lumber locally the material was shipped from North Bay. The truss timbers and caps are of British Columbia fir, and the flooring, stringers and railing are of pine. D. H. McIntosh was foreman in charge. Total cost of bridge, $2,788.00.

Nipissing District Bridges.

Lavasse Creek Bridge, Concession 13, *Ferris.*—Located over Lavasse Creek on the West Sideline in the 13th Concession of Ferris. It is a concrete pile trestle 56 feet long. It has a centre span of 25 feet, with end spans of 15 feet 6 inches each. A 6-inch concrete floor is supported on 4 main beams. On the centre span the beams are 24 inches deep and 14 inches wide, reinforced with 6 one-inch square twisted bars. On the end spans the beams are 12 inches deep and 12 inches wide, reinforced with 4 one-inch bars. The deck is supported on 4 bents of concrete piles, 4 piles to each bent. The piles are 14 inches square at the head and 8 inches square at the point. They are reinforced with 4 three-quarter inch bars, and wound with No. 7 annealed wire. In the two centre bents the piles are 29 feet long and in the two end bents the piles are 19 feet long. The railing consists of moulded posts bedded in floor and top rail. Eight main posts

on each side reinforced with 5/8-inch bars support a top rail 9 inches wide and 6 inches deep. This top rail is reinforced with two 1/2 inch bars placed at each side of the railing posts. The approaches at each end are filled with stone which is allowed to fall to a natural slope, taking the place of solid abutments. W. J. Davis was foreman in charge. Cost of bridge complete, $3,167.

Deux Riviere Bridge.—Located over Deux Riviere on the Trunk Road in the Township of Clara. A concrete beam bridge with a clear span of 30 feet on concrete abutments. The abutments are 11 feet 6 inches in height to the floor level. The floor is a 6-inch slab, reinforced with 5/8-inch bars supported by 4 main beams 30 inches deep and 14 inches wide. The 2 centre beams are reinforced with six bars one inch square twisted. The outside beams are reinforced with four bars one inch square twisted. The railing is composed of moulded concrete posts bedded in the floor and top rail. The top rail is 9 inches wide and 6 inches deep reinforced with two 1/2-inch bars. The rail is supported by 4 main posts 12 inches square, each post being reinforced with four 5/8-inch bars. A heavy fill was placed at each end of the bridge to complete the road grade. W. J. Davis was foreman in charge. Total cost, $2,131.00.

Second Concession Bridge, Bonfield.—Located over a creek at Lot 26 on the 2nd Line of Bonfield. It is a timber bridge with a clear span of 22 feet. The floor is supported by a king truss. The abutments are framed cedar cedar cribs 8 feet in height. The ravine, 50 feet wide, is filled with stone and gravel, and a railing placed at each side of the fill. The work was done under the direction of P. Rochefort, Road Inspector. Cost of bridge, $482.00.

Seventeenth Concession Bridge, Chisholm.—Located over Graham Creek at Lot 6 on the 17th Concession Road of Chisholm. It is a concrete beam bridge, with a clear span of 20 feet. The deck is supported on concrete abutments. The fill at each end consists of stone which is allowed to fall to a natural slope around the piles, acting as a retaining wall for the roadway fill. W. J. Davis was foreman in charge. Cost of bridge, $1,373.00.

Widdifield Bridge, Chippewa Creek, Concession 1.—Located over Chippewa Creek on the 20-21 Sideline in the 1st Concession of Widdifield. It is a concrete beam bridge with a clear span of 12 feet. The concrete abutments are 8 feet in height to the floor level. The approaches have been properly filled.

Trout Lake Bridge, Concession C.—Located over a creek on the Trout Lake Road, Lot 12, Concession C. It is a reinforced concrete box culvert, 32 feet long, 7 feet wide, and 6 feet high, inside measurement. Wing walls are placed at each corner. The fill extends 6 feet above the top of the cover, having a total height of 14 feet. S. Cole was foreman in charge. Cost of both bridges, $2,764.00.

Parry Sound District Bridges.

Beggsboro Bridge, McMurrich.—Located over Beggsboro Creek on the road west of Lot 16 in the 12th Concession of McMurrich. It is a concrete trestle. It has a centre span of 25 feet with two end spans of 15 feet 6 inches each. The bridge follows the same construction as the LaVasse Creek bridge in Nipissing before described. C. L. Falstrem was foreman in charge. Total cost of bridge, $3,577.00.

East Road Bridge, Spence.—Located over Old Man Creek on the East Road on Lot 9, Concession 12, Spence. It is a 30-foot concrete beam bridge on concrete pile abutments. The approaches are filled with stone which falls to a natural slope around the piles forming a retaining wall for the roadway. T. J. Paget was foreman in charge. Cost of bridge, $2,191.00.

North Seguin Bridge.—Located over the North Seguin River on the Nipissing Road in the Township of Spence. It is a concrete beam bridge on concrete abutments. The abutments rest on rock and are 4 feet in height to the bottom of the beams. The span is 35 feet clear. The beams are 34 inches deep below the floor, and are reinforced with seven 1-inch square twisted bars. The floor is a 6-inch slab reinforced with ⅝-inch bars. The railing is of moulded concrete posts. T. J. Paget was foreman in charge. Cost of bridge, $2,150.00.

Restoule Bridge.—Located over the Restoule River at Restoule, Lot 23, Concession 3 in the Township of Patterson. It is a concrete beam deck on rubble masonry abutments. The bridge has a clear span of 36 feet. The abutments are 14 feet 6 inches in height to the floor level. The four main beams are 36 inches below the floor level, and the two middle beams are 16 inches wide, reinforced with nine 1-inch square twisted bars. The two outside beams are 14 inches wide, reinforced with 7 one-inch square twisted bars. The floor is a 6-inch slab reinforced with ⅝-inch bars. The railing is a moulded slab supported by 5 main posts on each side. A large quantity of the stone used in the abutments was taken from the bottom of the river removing ledges and widening and deepening the channel. The approaches have been well graded to meet the level of the new bridge, which is raised 3 feet 10 inches above the level of the old bridge. P. R. Switzer was foreman in charge. Total cost of bridge, $3,350.00.

Seguin River Bridge, Christie.—Located over the Seguin River on the road through Lot 9 in the 11th Concession of Christie. It is a concrete beam bridge with a clear span of 27 feet. The concrete abutments are 19 feet in height to the floor level. A very heavy fill is placed at each end of the bridge. C. L. Falstrem was foreman in charge. Total cost of bridge was $3,920.00.

South River Bridge, Joly, Laurier Townline.—Located over South River at Lot 2 of Laurier, on the Joly-Laurier Townline. It is a concrete trestle bridge on concrete piles. The bridge is 63 feet long. It has a centre span of 30 feet with two end spans of 16 feet 6 inches each. The approaches are filled with stone which falls to a natural slope around the end piles. The railing is of moulded concrete posts. T. J. Paget was foreman in charge. Total cost of bridge $3,436.00.

Sucker Creek Bridge.—Located over Sucker Creek on the road west from Rosseau, at Lot 9 in the 6th Concession of Humphrey. It is a concrete beam bridge with a clear span of 20 feet. The abutments are of concrete. The east abutment is 19 feet in height and the west 16 feet in height to the floor level. C. L. Falstrem was foremen in charge. Cost of bridge $3,580.00

Muskoka District Bridges.

Benns Creek Bridge, Concession 13, Ryde.—Located over Benns Creek at Lot 14 on the 13th Concession Road of Ryde. It is a concrete beam bridge on concrete

abutments. It has a clear span of 17 feet. The abutments are 10 feet 3 inches in height to the floor level, and rest on pile foundations. William Lowe was director of the work. Cost of bridge $1,295.00

Green's Creek Bridge, Sinclair.—Located on Green's Creek on the Grassmere-Dwight Road, at Lot 23, Concession 2, Sinclair. It is a reinforced box culvert 31 feet long, 4 feet high and 6 feet wide inside measurement. Wing walls are placed at each corner. The fill extends 6 feet above the top of the culvert. Cost complete, $1,081.00

Kilworthy Bridge, Morrison.—Located over a creek on the Kilworthy-Gravenhurst Road, near Lot 20, concession 10, Morrison. It is a concrete beam bridge on concrete abutments. It has a clear span of 12 feet. The abutments are 8 feet in height to the floor level, and rest on pile foundations. Cost complete $1,396.00.

Lambert's Bridge, Concession 4, Oakley.—Located over Black River at Lot 21 in the 4th Concession of Oakley. It is a concrete beam bridge on rubble masonry abutments. It has a clear span of 30 feet. The abutments are 12 feet in height to the floor level and rest on solid rock bottom. The approaches were properly graded to meet the new floor level. Cost of bridge, $2,211.00.

Outlet Creek Bridge, Baysville Road.—This is a high bridge located over Outlet Creek on the Baysville Road, Lot 27, Concession 7, McLean. The bridge consists of concrete beam deck with a clear span of 40 feet. On the east side a seat for the beams was cut from the solid rock. On the west side, light concrete abutments were placed to level up the bridge seat. The floor is a 6-inch slab supported by four main beams. The two concrete beams are 36 inches deep and 14 inches wide, reinforced with nine 1-inch square twisted bars. The two outside beams are 46 inches deep and 14 inches wide, reinforced with seven 1-inch square twisted bars. The railing is a moulded slab supported by five main posts on each side. The posts are 12 inches square reinforced with four ⅝-inch bars. The top rail is 9 inches wide and 6 inches deep, reinforced with two ½-inch bars. A large ledge of rock was blasted from the south-west side to provide a proper approach to the bridge. Total cost of bridge, $3,350.00. All the work in the Muskoka District was done under the direction of William Lowe, Public Works Foreman.

Simcoe Bridges.

Third Line Bridge, North Orillia.—Located over a creek at Lot 3 on the 3rd Concession Road of North Orillia. It is a concrete beam bridge on concrete pile abutments. It has a clear span of 20 feet. The approaches are filled with stone which falls to a natural slope around the piles forming a retaining wall for the roadway fill. Amos Train was foreman in charge. Cost of bridge, $1,352.00.

Thirteenth Concession Bridge, Vespra.—Located at Lot 18 on the 13th Concession Road of Vespra. It is a reinforced concrete box culvert 54 feet long, 5 feet high and 7 feet wide inside measurement. The fill extends 18 feet in height above top of culvert, having a total height of 25 feet. A substantial guard rail is placed at each side of the fill, which has a top width of 18 feet. Amos Train was foreman in charge. Total cost, $2,046.00

Willow Creek Bridge, Concession 7, Vespra.—Located over Williw Creek at Lot 9, on the 9th Concession Road of Vespra. It is a concrete beam bridge on concrete pile piers. It has a clear span of 25 feet. The floor is a 6-inch slab, reinforced with 5/8-inch bars. Four beams support the floor. The beams are 24 inches deep and 14 inches wide. The two middle beams are reinforced with six 1-inch bars, and the outside beams are reinforced with four 1-inch bars. Four concrete piles are used at each end. The piles are 27 feet long, 14 feet square at the head and 8 inches square at the point. They are reinforced with four 3/4-inch square twisted bars wound with No. 7 Annealed wire. The approaches at each end are filled with stone which drops to a natural slope around the piles. The stone is deeply bedded to prevent displacement by scour. Amos Train was foreman in charge. Total cost of bridge. $1,611.00.

Victoria and Haliburton Bridges.

Cheddar Bridges, Cardiff.—This work consisted in the repair of two timber bridges over Goldburn Creek at Lot 12, Concession 11, and Lot 11, Concession 12, Cardiff, near the Village of Cheddar. $357.00 was expended on the work.

Moore's Falls Bridge.—Located over the Gull River at Moore's Falls in the Township of Lutterworth. Last year the approaches of this bridge were rock-filled. This year a new timber truss 54-foot long was placed on the main span of the bridge, and the necessary repairs made on the piers. $497.00 was expended on the work.

Sproule and Ingram Bridges, Verulam.—The Sproule bridge is located over a creek at Lot 19 on the 5th Concession, and the Ingram bridge is at Lot 28 on the 8th Concession of Verulam. The bridges are built after the same plan. They are reinforced arches with clear spans of 16 feet and a height of 7 feet from the creek bottom. Stone retaininng walls are placed at each side of the fill for over a length of 30 feet at each end of the bridge. The bridges were built by the Township. On the report of Wm. Kennedy, Superintendent of Public Works, who examined the work on behalf of the Department, the grant of $500.00 voted for this work, was paid to the Township of Verulam.

Hastings Bridges.

Bell's Bridge, Bangor.—Located on Lot 14, Concession 10, Bangor. A timber bridge with a 35-foot span resting on stone abutments. The timber is first-class sawn cedar. Approaches well filled, with a guard rail in place. Total cost, $387.00.

Deer Creek Bridge, Wollaston.—Located over Deer Creek at Lot 23, Concession 1, Wollaston. A timber bridge 95 feet long on timber crib piers. It has a centre king truss span of 29 feet with approach spans at each end 19 feet clear. The two centre piers are 12 feet high and 8 feet wide, with cut water on up-stream end. The two shore piers are 6 feet high and 6 feet wide. The stringers are 12-inch flatted timbers, floor 3-inch plank. The timber is all first quality cedar. Total cost, $1,267.00.

Dutch Creek Bridge, Herschel.—A timber bridge with a 20-foot clear span on timber crib abutments. Timber all first quality cedar; approaches well graded. Cost of bridge, $324.00

First Concession (Grant's Bridge), Wicklow.—Located over a creek at Lot 18, Concession 1, Wicklow. It has a clear span of 28 feet supported by a king truss. One end rests on the the rock bank, the other end is supported by a rock-filled crib 6 feet wide and 8 feet high. The timber is all first quality cedar. Cost of bridge, $726.00

Gunter Bridge, Tudor.—Located over the Moira River at Lot 10, Concession 7, Tudor. A timber bridge with a clear span of 30 feet supported on timber crib abutments. The deck is supported by a king truss. Total cost, $403.00.

Holmes' Bridge, Elzevir.—The bridge has a clear span of 20 feet. The abutments are of concrete 8 feet in height. Six lines of railway steel rails support a floor of cedar 6 inches thick. The approaches are well graded and the roadway gravelled. The Department expended $394.00 on the work.

Lily Creek Bridges, Mayo.—Two timber bridges at Lots 29 and 30 on the 13th Concession of Mayo. The bridges have a clear span of 20 feet. Five lines of 10-inch flatted stringers support a floor of 3-inch plank. Substantial guard rails are in place, and the approaches are properly graded. $400.00 was spent on the two bridges.

Mullet Creek Bridge, Mayo.—Located at Lot 1, Concession 6, Mayo. A timber deck on natural rock banks. It has a clear span of 28 feet 6 inches supported by a king truss. Cost of bridge, $350.00.

Long Lake Bridge, McClure.—Located over a creek at Lot 6, on the McClure-Herschel Boundary. The bridge has a clear span of 20 feet, crib abutments 6 feet wide. Five lines of flatted cedar stringers and a floor of 6-inch hewn cedar. The approaches are well filled with stone and gravel, and a proper guard rail provided on each side of bridge and fill. Cost of bridge, $398.00

Papineau Creek Bridge, Peterson Road.—Located over Papineau Creek on the Peterson Road at Lot 6, Concession 3, Wicklow. A timber bridge on stone-filled piers. It has two spans of 30 feet each. All timber is first quality cedar. Approaches well filled and guard rail provided on each side of bridge and fill. Total cost, $782.00

Rawdon Creek Bridge.—Located over Rawdon Creek on Lot 8, Concession 5, Huntingdon. A timber bridge on rock-filled timber cribs 6 feet wide. It has a clear span of 20 feet. The approaches are well filled with rock and gravel. The timber is cedar and rock elm. Cost of bridge, $490.00.

Reid's Bridge, Limerick.—Located over Reid's Creek on Lot 21, Concession 3, Limerick. It is a timber bridge 32 feet long The abutments are timber cribs 8 feet wide. Five lines of 10-inch flatted cedar stringers support a floor of 6-inch sawn cedar. Approaches well filled, with guard rail in place. All the timber is first quality cedar. Cost of bridge, $219.00.

Tudor Bridges.—Otter Creek bridge located over Otter Creek at Lot 20, Concession 15, Tudor. A timber bridge with a 20-foot clear span on timber crib abutments 6 feet wide. All timber is first-class cedar. Approaches well graded. Cost of bridge $276.00.

Jordan Creek Bridge.—Located over a creek at Lot 20, Concession 16, Tudor. A timber bridge with a clear span of 20 feet on timber crib abutments 6 feet wide. All timber first quality of cedar. Approaches well graded and with proper guard railing erected. Cost of bridge, $293.00. All the bridges in Hasting were constructed under the direction of Walter Wiggins, Road Inspector, according to plans prepared by the Department.

Addington Bridges.

Carscallen Bridge, Sheffield.—Located over the Salmon River at Carscallen Mills, in the Township of Sheffield. The bridge consists of two spans of 30 feet each, supported by a king truss. The abutments and centre pier are 8 feet wide and 19 feet high. The floor is of 4-inch hemlock. The bridge was constructed by the Township of Sheffield, and the Department granted $300.00 towards the construction.

Cole Creek Bridge, Hinchinbrooke.—Located over Cole Creek on the road from Fernay to Godfrey, in the Township of Hinchinbrooke. It is a concrete bridge. The abutments are 10 feet in height. The floor is a concrete slab reinforced with old steel rails. The span is 13 feet clear. The approaches have been properly graded by cutting down the banks and filling the hollows. The Department contributed $300.00 towards the cost of the bridge.

Hill Lake and Marble Lake Bridges, Barrie.—The Hill Lake bridge is located on Lot 26, Concession 7, Barrie. It consists of a timber deck resting on stone walls. The bridge is 5 feet in width. The site of the old bridge has been filled with stone for a length of 42 feet, the fill running from 3 to 6 feet in height.

Marble Lake Bridge.—Located on Lot 27, Concession 7, Barrie. The bridge follows the same construction as the Hill Lake bridge. The site of the old bridge,—91 feet long,—has been filled with stone. The Department contributed $200.00 towards the cost of these two bridges.

Renfrew Bridges.

Bagot Creek Bridge.—Located over Bagot Creek at Lot 16, Concession 3, Bagot. The bridge is 40 feet long on 3 cedar piers 6 feet wide and 8 feet in height. The east approach is filled for a length of 40 feet and the west approach for a length of 20 feet. The hills on each side were cut down to make the fill. $198.00 was expended on the work.

Byers Creek Bridge.—Located over Byers Creek, Lot 21, on the 13th Concession of Hagarty. The bridge has a clear span of 24 feet, timber crib abutments 8 feet wide. The gully has been filled over a length of 60 feet. Cedar timber used throughout. Cost of bridge, $199.00.

Constant Creek Bridge, Bagot.—Located over Constant Creek at Lot 16, Concession 6, Grattan. The bridge is 42 feet long, supported by timber crib piers. The north approach is filled for a length of 55 feet and the south approach for a length of 87 feet. Guard rails are placed at each side of bridge and fill. The Department expended $200.00 on the work. The balance of the cost was put up by the Township.

Le Clair Bridge, Black Donald Road.—Located over a gully on the Black Donald Road at Lot 6, Concession 5, Matawatchan. This is a timber bridge 66 feet long and 16 feet in height. The east approach is filled for a distance of 40 feet and the west approach for a length of 30 feet. A substantial guard railing is placed at each side of the bridge and fill. Cost complete, $625.00.

Schutt Bridge, Raglan.—Located over a creek at Lot 32, Concession 9, Raglan. It is a timber bridge 40 feet long, on a centre pier and two end piers. Cedar timber used throughout. The approaches have been properly graded. Cost of bridge, $200.00. All the work in Renfrew was done under the direction of H. N. Moss, Road Inspector for the District.

Baysville Dam.

At the close of navigation in 1917 work was commenced at the new stone dam at the outlet of Lake of Bays, at Baysville, in the Muskoka District. The dam is located on Lot 16 in Concession 7, in the Township of McLean. The dam is a masonry structure throughout. It is provided with three stop-log openings, 19, 20 and 21 feet in clear width. The varying widths were adopted so that worn logs may be cut off and moved from the long to the shorter sluices. The three sills are on a uniform level, fixed at the low level of the natural bottom at this point. At the west end of the dam a sluice 16 feet in clear width was provided for the Feren Mill, and at the east end a blind sluice 6 feet wide was provided for the Preston Mill. On the main dams, 80 feet long, the deck is 12 feet above the sills. The deck is 12 feet wide above the stop-log chace, and 4 feet wide below. The floor is of 3-inch pine plank supported on six lines of 10-inch I beams. The top of the masonry wall throughout is fixed at 10 feet above the sills. The overlength of the dam is 477 feet. The main dam has four main piers 12 feet high, 5 feet wide and 20 feet long with rounded up stream end. The stop-log chaces are lined with 8-inch steel channels riveted to a back steel plate 5/8-inch,—24 inches wide. The stop-logs provided are B.C. fir, 12 inches square. The masonry wall, having a total length of 381 lineal feet—is 3 feet wide on top with a vertical face and a batter of three in ten on the back,—varies in height from 3 to 10 feet. It consists of rubble masonry set in cement mortar. The stone was quarried from the river bottom immediately below the dam. A large quantity of the stone was moved directly from the quarry to the wall by steam derricks. Buttresses 2 feet thick, with a face slope of 45 degrees, are placed behind the wall 20 feet centre to centre, to strengthen the wall against possible ice pressure. The wall is perfectly water tight. The stop-log winches provided are of worm gear construction,—slow in operation, but very effective. Taking the elevation of the top of the sills in the dam as zero, navigation level was fixed at 5.50; elevation in reference to this zero was noted at the following points:

Dominion guage at Smith's dock, zero	7.17
Top of Wa Wa dock, S. W. corner	8.10
Top of concrete dock, Dining Hall, Bigwin Island	6.60
Top of concrete dock, Recreation Hall, Bigwin Island	7.60
Top of boat dock, Bigwin Island	7.60
Top of dock at Dorset	7.20

The permanent works constructed at Bigwin Island will be seriously affected by holding the water in Lake of Bays at a higher level than 5.50. The sand beach at Wa Wa would also be damaged by water at a higher level. The different landing

docks will soon need new covers, and these may all be raised to correspond with the navigation level fixed at 5.50. The dam is constructed to safely hold a head of 8 feet, but as conditions exist at present 5.50 is a reasonable head, and a head of 6 feet will cause serious inconvenience. The dam was fully completed and the stop-logs in place before the opening of navigation on Lake of Bays. Richard Richards, of Baysville was appointed Caretaker at a salary of $100.00 per year. He acts directly under this Department in the operation of the dam. At the end of each week he reports the daily level of the water.

The South Falls Power Plant on the south branch of the Muskoka River, from which the Townships of Gravenhurst and Huntsville secure their supply of electric power, is dependent on Lake of Bays and tributary waters for its water supply. Last year the normal flow of the stream was sufficient for all requirements, but this will not be the case in dry seasons. During the season of navigation a proper depth of water must be maintained. We are thus restricted to a very small variation in the level of the Lake of Bays. To safeguard the interests of navigation and the South Falls Power Plant it is necessary that another source of supply be secured. This may best be done by the Department taking control of the Hollow Lake dam. This dam is at present under the control of the Mickle-Dyment Lumber Company which operates the dam for log-driving purposes. The crest of the dam conforms closely to the high water level of the lake. The dam is leaking badly and without repairs it will only hold a head of 3 feet of water. Hollow Lake has an area of about 7,000 acres, with a drainage area of about 153 square miles. A new dam should be constructed immediately below the old dam. The dam should be designed to raise the level of Hollow Lake at least 18 inches above the high water level. This elevation may be attained without any serious damage to private interests. This elevation will admit of a draw off of 7 feet from Hollow Lake. This regulation of Hollow Lake will insure a largely augmented power output at the South Falls Plant.

REPAIRING AND RECONSTRUCTION OF BRIDGES, FROM MAINTENANCE FUND.

Rainy River District.

Bergland Road Bridge.—Work consisted in placing new stringers and leveling up bridge. Located over the large drain on above road. $30.84 was expended on the work.

Kenora District Bridges.

Pellatt Road Swing Bridge.—Located over Darlington Bay on the Pellatt Road, leading north from Keewatin. The bridge is 560 feet long, The repairs comprised placing a new top cover of 2-inch plank, 10 feet long, over the entire length of the bridge, repairing the railing, restoring the graded approaches which had been injured by high water, and adjusting the pier of the swing bridge. $646.00 was expended on the work.

Nugget Creek Bridge.—Located on the main road about one-half mile east of Wabigoon, in the Township of Zealand. The covering was renewed, several of the bents raised and straightened and the approaches properly graded. $85.00 was expended on the work.

Winnipeg River Boom.—To guard against floating timber, and small craft from entering the strong current of the Winnipeg River, a boom was stretched across the entrance to the river from the Lake of the Woods. The boom is 1,100 feet long. It is anchored on each shore with rock-bolted cables. To hold the boom in place across the Bay anchor piles were driven where the bottom will permit it, and where the bottom is solid rock the anchor piles were fastened to very large boulders with rock bolts. These boulders were then dumped from scows at the desired location. The boulders hold the anchor piles securely in place. The boom timbers are chained to the anchor piles. The timber used in the boom was all furnished by the lumbermen operating on the Lake of the Woods. The cost of the boom to the Department, for labour, chains, rock bolts, rent of outfit, etc. was $437.70.

All the work in the Kenora District was done under the direction of James Fraser, Road Inspector.

Thunder Bay District Bridges.

Kaministiqua Bridge, Paipoonge.—The concrete floor on this bridge is showing signs of wear. Small grooves are developing at the line of wheel traffic. The entire concrete floor was covered with four inches of good gravel. The gravel has set perfectly and further wear on the concrete is obviated.

Pitch Creek Bridge, Concession 4, O'Connor.—Located over Pitch Creek on the 4th Concession Road of O'Connor. It is a timber king truss bridge 32 feet long. The truss is supported at each end on framed bents of cedar. The stringers are 10-inch flatted tamarac; floor 3-inch tamarac plank. The balance of the timber used is cedar. Approaches well graded. Cost $229.00.

Silver Creek Bridge.—On the 3rd Concession Road of O'Connor,—was re-covered, railing placed and approaches graded. Cost of work, $112.00. John McNee, Road Inspector, was in charge of the work in this District.

Sault Ste. Marie Bridges.

Magpie River Bridge.—Located over the Magpie River on the road leading to the Government dock at Michipicoten River. The bridge is 150 feet long and consists of 2 truss spans 60 feet long and an approach span 20 feet long. The old structure was rotten beyond use and the bridge was completely rebuilt. The decayed timber was all removed from the crib piers. Two new standard 60 feet truss spans were placed and the 20 feet approach span was re-covered. The timber (jack pine) was taken from the woods about 4 miles from the bridge site. S. W. Butt was foreman in charge. Cost of work $2,082.00.

Wa Wa Bridge.—A rough timber bridge over a creek at Wa Wa Station on the Algoma Central Railway. The bridge is 30 feet long. It was rebuilt completely. $118.00 was expended on the work.

Algoma District Bridges.

Black Creek Bridge, Plummer.—Located over Black Creek on the N. ½ of of Lot 4, Cuthbertson Location. It is a concrete beam bridge with a clear span of 20 feet on concrete abutments. Walter Robinson was foreman in charge.

Dausey Bridge.—This is a steel span 43 feet long. The repair comprised placing an entire new floor of hemlock plank. $113.00 was expended on the work.

Dunn Creek Bridge.—Located over Dunn's Creek, Lot 6, Concession 2, Galbraith. It is a pile trestle bridge consisting of three spans of 15 feet each. The pile bents are 10 feet high. The bridge is built throughout of cedar. Approaches well graded. Cost of bridge, $526.00.

Dynes Bridge, Johnston.—Located over Sucker Creek on the Kensington Point Road. The bridge is 30 feet long. A new pile bent was placed under the middle of the bridge, and a new deck, stringers and floor constructed. The Township supplied the material. $150.00 was expended on the work.

Kring's Bridge, Victoria.—This bridge was re-covered and the approaches properly graded. $120.00 was spent on the work.

Lefroy Bridge.—Located over a creek on Section 11, Lefroy. The work consisted of building up the approaches to the bridge. 170 yards of earth, stone and clay were placed on the fills. Cost, $102.00.

Little Serpent Bridge, Victoria.—The repairs consisted of rebuilding the centre span of the bridge which is 36 feet long. The span is supported by a king truss of 10 x 12 timber. $291.00 was expended on the work.

Mississagua Bridge, Trunk Road.—Part of the timber approach to the steel bridge was supplied with a new floor in 1917. The approach is 95 feet long. This season the balance of the approach,—75 feet—was furnished with a new floor of 3-inch tamarac plank. A new railing was also constructed. Cost of work, $433.00.

Potomac River Bridge.—Locally known as Eakett's bridge. It is located over the Potomac River at Lot 3, Concession 3, Gladstone. A timber pile trestle bridge 88 feet long and 10 feet in height. Re-built completely. Cost of bridge, $258.00.

Tunnel Bridge, Wells.—Located over the Mississagua River, in the Township of Wells. It is a steel bridge 153 feet long, erected in 1910. The floor is of plank. Part of this flooring required renewal. A new floor of 3-inch tamarac plank was placed on 20 feet of the west end of the bridge and on 60 feet of the east end. Cost of Work, $188.00.

Victoria Bridge, Section 34.—Located over a creek on the South Boundary of the S. E. ¼, Section 34, Victoria. The old bridge was 24 feet long. The new bridge, on pile abutments, is 16 feet long, with tamarac piles, pine stringers and flatted cedar flooring. The approaches have been well graded. Cost of work, $171.00

Wannamaker Bridge, Galbraith.—Located in Dunn's Valley at line of Lots 3 and 4, Concession 2, Galbraith. The old bridge was 32 feet long, the new bridge is 16 feet long. Pile abutments, stringers and floor flatted cedar. Approaches well graded. Cost of bridge, $172.00. All the repair work in the Algoma District was done under the direction of James Barkley, Road Inspector.

Manitoulin District Bridges.

Espanola Bridge.—The tremendous rush of water caused by the bursting of the Onaping Lake dam in 1915, undermined the centre pier of the large steel Highway bridge over the Spanish River at Espanola. This pier is a massive concrete structure, 45 feet in height, 10 feet wide and 22 feet long. The pier rests on a pile foundation. The flood water scoured the bottom about 4 feet in depth at the south-east corner of the pier tapering off to nothing at the north-west corner. In the Fall of 1917 the pier began to slowly tilt to the south-east where the deepest scour had occurred. A 1¼-inch steel cable was tied to the pier and securely anchored on the rocky shore in line with the movement of the pier. The cable stopped further movement. A nest of piles about 4 feet wide was then driven around the south side and the east end of the pier. The piles were driven to refusal, the head of the pile being left flush with the river bottom. A timber crib was then placed around the pier, leaving a space of 4 feet at the south side and 2 feet on the north side of the old pier. A concrete bottom, 18 inches thick, was then poured into the new crib and beneath the pier. When the concrete bottom had properly set the crib was pumped out, the old crib casing on the pier was removed and the concrete well reinforced was grouted compactly under the old concrete. The crib surrounding the old pier was then filled to the top. To guard against further scour around the pier a large dump of very large boulders was placed on the bottom around the pier. When the concrete had set the pier showed no further movement where the cable was removed. The pier is a little out of plumb but the new foundation should hold it securely against further settlement. C. R. Dolmage was foreman in charge of the work.

Sudbury District Bridges.

Whitson Creek Bridge, Concession V, Blezard.—Located over Whitson Creek on the 10 and 11 Sideline in the 5th Concession of Blezard. It is a timber bridge 68 feet long on pile piers and abutments. It has a centre span of 23 feet supported by a king truss with three spans of 15 feet each. $450.00 was expended on the bridge.

Hagar Siding Bridge.—Located over the Veuve River at Hagar Siding, Lot 1, Concession 1, Hagar. A timber bridge 75 feet long on stone-filled crib piers. It has a centre span of 30 feet with approach spans of 15 feet at each end. The flooring is 6-inch flatted tamarac. $1,095.00 was expended on the bridge. A. L. McDonald was foreman in charge of these bridges.

Sturgeon Falls District Bridges.

Badgerow Bridges, Concession V.—Located over a creek on Lot 8, Concession 5, Badgerow. Work consisted of rebuilding a timber bridge 45 feet long. Flatted cedar stringers: 2-inch pine plank floor. Cost of bridge, $301.00.

Brule Creek Bridge, Springer.—Located over Brule Creek on Sturgeon Falls, Smoky Falls Road in Concession 6, Springer. The old piers were torn down and rebuilt with the same timber, widening the span to 20 feet. The new piers were partly filled with stone, a new deck, flatted cedar stringers, 2-inch pine plank floor and pine railing were constructed. The bridge was raised one foot over the former height. The approaches were properly graded.

Cache Creek Bridge, 8 and 9 Sideline Springer.—A pile trestle bridge 45 feet long; four pile bents with four piles each support 5 lines of flatted cedar stringers. The floor is of 2-inch pine plank; railing, pine; 4 inches x 4 inches posts; 2 inches x 6 inch top and hub rail; 4 inch x 6 inch wheel guard. Approaches well graded.

Cache Creek Bridge, Lot 12, Concession 5, Springer.—Locally known as Potvin bridge. The bridge has a clear span of 20 feet. Rubble masonry and concrete mortar abutments. The deck, floor and stringers are of flatted cedar. The Township of Springer furnished the material for these four bridges and the Department paid for the labour, which was done under the direction of A. L. McDonald. The cost of the four bridges to the Department was $1,349.00.

Gagne Bridge, Field.—Located over a gully on the Field Road, Lot 13, Concession 5. The old bridge was a pile trestle 125 feet long and 23 feet in height. The banks at each end of the bridge were breaking away,—a fill would not stand. It was necessary to put in a new bent Section 14 feet long at each end, making the total length 153 feet. Four of the old pile bents were beyond repair and were replaced with new bents of four piles each, well braced. A new floor of 2-inch pine plank was provided, and a top floor 8 feet long of 2-inch plank was also placed. New corbels and stringers were also provided and new railing placed on full length of bridge. $886.00 was expended on the work.

Loughrin Bridge.—Located over a creek on the 3rd Concession of Loughrin. This bridge is about done. Some new cedar stringers and new flooring were provided to make the bridge safe for traffic. $75.00 was expended on the work.

North Boundary Bridge, McPherson.—Located over a creek at Lot 8 on the townline between McPherson and Kirkpatrick. The bridge has a 20-foot span. Timber crib abutments of flatted pine,—flatted pine stringers and floor railing of round pine. As the site of the bridge was moved to bring it in line with the road considerable grading was required. $248.00 was expended on the work.

South Branch Bridge.—Located over the South Branch of the Veuve River at Concession 5, on the Appleby-Dunnet Townline. The bridge is 73 feet long. It has a centre king truss span of 30 feet with approach spans of 15 feet at each end. The truss is supported on double pile piers 6 feet wide. There are six pile bents with four piles in each bent. The truss members, chords, needle beams and caps are 10-inch x 10-inch timbers. The stringers and floor are flatted tamarac. The filling of the approaches has not been completed. $1,241.00 was expended on the work.

Desaulniers Bridge.—Located over the Sturgeon River on Lot 7, Concession 1, Gibbons. The repairs consisted of placing a new top floor of 3-inch plank 8 feet long, over the entire length of the bridge,—210 feet. $180.00 was expended on the work.

Temiskaming District Bridges.

White River Bridges—Tomstown Bridge.—Repairs consisted of refacing 7 feet in height of the main pier and 5 feet in height of the pier west of main pier with 3-inch tamarac plank. All the defective plank in the floor was removed and replaced with new plank. The truss rods were all tightened up.

Hilliardton Bridge.—Removed all defective plank from the facing on the piers and replaced the same with new plank. All the defective covering was also replaced with 3-inch tamarac plank. the truss rods were all tightened up.

Pearsons' Bridge.—A landslide carried down the North shore pile pier, dropping the ends of the bridge 3 feet. A new pile pier was driven, and the bridge floor properly leveled. The approach was also graded. A large number of defective planks in the flooring were replaced with 3-inch tamarac plank.

Judge's Bridge.—A number of defective plank were replaced with 3-inch tamarac plank.

Wright's Creek Bridge, Judge.—The truss timbers were straightened and braced. Truss rods tightened up and the floor thoroughly overhauled,—all defective plank being replaced with 3-inch tamarac plank. D. H. McIntosh, Public Works foreman, was in charge of the repair work.

Nipissing District Bridges.

Eau Claire Bridge.—This bridge is 54 feet long,—a steel span with a plank floor. The plank floor was renewed with 3-inch tamarac plank and the approaches properly graded where the water had been encroaching. $163.00 was expended on the repairs.

Moore Creek Bridge, Lyell.—Located over Moore's Creek on Lot 16, Concession 14, in the Township of Lyell. It is a timber bridge, queen truss, with a clear span of 40 feet. The truss is supported on timber crib abutments. The stream is in a swamp and the approaches had to be built up above high water level. The fill is 225 feet long. A guard rail is placed at each side of the fill. $1,580.00 was expended on the work.

Whitney Bridge.—This work consisted of placing a new floor of flatted cedar on the steel bridge at Whitney, in the Township of Airy. The bridge floor is 80 feet long and 16 feet wide. $213.00 was expended on the work. P. Rochefort, Road Inspector, was supervisor of the repair work in the Nipissing District.

Parry Sound District Bridges.

Ahmic Dam Bridge.—Repairs comprised splicing the bottom chords and repairing the floor to keep the bridge open to traffic for the season.

Broad River Bridge, Humphrey.—Located over the Broad River on the Parry Sound Road, in the Township of Humphrey. The work consisted of rebuilding a timber bridge. The old piers were removed to low water level and rebuilt to the required height. The bridge was raised about four feet above the old height to permit of the passage of launches during high water. The bridge has a clear span of 20 feet. The approaches were properly graded to meet the new level of the bridge. Cost of bridge, $1,392.00. C. L. Falstrem was foreman in charge.

Broadbent Bridge.—Over the Manitouwabing River, Lot 16, Concession 4, McKellar. Length 92 feet. One of the abutments was leveled up and a new deck floor and stringers put on. A king truss was also supplied and a new railing placed. The floor is 3-inch hemlock plank. $225.00 was expended on the work.

Distress River Bridge, Magnetawan.—Small repairs were made to the truss timbers and structure to make the bridge safe for traffic. A new bridge must be erected at an early date. $110.00 was expended on the work.

Gurd Bridge, 30 Sideline.—This bridge is 31 feet long with a small centre pier stone-filled. A new deck was placed on the bridge. $139.00 was expended on the work.

Simpson's Bridge, Sand Lake Road.—Located over the South River on the Sand Lake Road, Concession 4, Proudfoot. A timber bridge 64 feet long. It comprises a main span of 30 feet supported by a king truss, two 13 feet pile trestle spans and a double pile bent abutment 6 feet wide. The structure is of pile construction on the west end, and the stone fill is allowed to fall to a natural slope around the end piles. On the east end the lower part of the inside row of piles on the piers and wing walls, is sheeted to hold the stone fill. The stringers are flatted cedar and the floor 3-inch pine plank. The truss timbers and needle beam are 10 x 10-inch pine. A very heavy fill is placed at each end of the bridge, the part adjoining the water being entirely of stone. T. J. Paget was foreman on construction. Cost of bridge complete, $1,437.00.

Squaw Lake Bridge, Lot 17, Concession 14, McKellar.—The work consisted in putting a new floor on the bridge. $130.00 was expended on the work.

Whitestone Bridge.—Located over the Whitestone River in McKenzie. In 1917 the bridge was re-floored; this season a number of piles were renewed and some defective stringers and pile caps replaced. $81.00 was expended on the work.

Muskoka District Bridges.

Bala Bridge.—The plank floor on the long steel bridge on the North Channel at Bala was dangerous to traffic. This season a new plank floor was laid over the full length of the bridge—145 feet.

Dorset Bridge.—Located over the Hollow River at Dorset. It is a steel span of 80 feet with approach spans of 33 feet 6 inches at each end. This season a new plank floor was placed on the 80-foot steel span.

Victoria and Haliburton District Bridges.

Burnt River Bridge, Concession 5, Glanmorgan.—This bridge is 66 feet long, was repaired by piling stone around the foundation of one of the piers that was undermined by the water. Two new stringers were placed and the necessary repairs made to the floor and railing. One of the approaches was graded. $81.00 was expended on the work.

Drinkwater Bridge.—Located on Lot 26, Concession 13, Glanmorgan. A timber bridge 66 feet long was removed. A stone arch culvert 4 feet wide and 4 feet high was constructed. The ravine was filled with gravel and rock. $124.00 was expended on the work.

Head River Bridge, Digby.—Located over the Head River on the Monck Road, at Lot 23, Concession 3, Digby. The bridge has a clear span of 19 feet. A king

truss supports the floor. The abutments are stone. One of the approaches 400 feet in length, was raised 2 feet with a gravel and rock fill to raise the road above the flood level. Strong guard rails were placed at each side of the bridge and fill. The Department contributed $250.00 towards the cost of the work.

Stormy Lake Bridge.—Located over a creek at Lot 26, Concession 14, Glanmorgan. A worn out timber bridge 65 feet long was removed. A stone arch culvert 4 feet wide and 4 feet high was constructed and the ravine filled with rock and gravel. $196.00 was expended on the work.

Otter Lake Bridge.—Located over a creek at the foot of Otter Lake, Concession 14, Monmouth. The old bridge was 190 feet long. Ninety feet was filled with rock and gravel, and the best of the salvaged timber was used in repairing the balance of the bridge. A strong guard rail was placed at each side of the new fill. $250.00 was expended on the work. All the work in this District was done under the supervision of Wm. Kennedy, Superintendent of Public Works for the Department.

North Hastings Bridges.

Alder Creek Bridge.—A timber bridge on cedar crib abutments 6 feet wide and 6 feet high. Five lines of flatted cedar stringers 10 inches thick, cover, 6-inch flatted cedar. Substantial guard rail in place; approaches well filled with earth and stone. $209.00 was expended on the work.

Cooper Creek Bridge, Bangor.—This bridge was overhauled and general repairs made to make it safe for traffic. $81.15 was expended on the bridge.

York Branch Steel Bridge.—Located over the York River, on the Monck Road, Concession 11, Dungannon. The steel span, 58 feet long, was well scraped and cleaned with steel brushes. Two coats of Feredor paint were applied. Small repairs were made to the timber section of the bridge. Cost of work, $149.00. All work in Hastings was done under the direction of Walter Wiggins, Road Inspector for the District.

Addington Bridges.

Quackenbush Creek Bridge.—Located over Quackenbush Creek in the 3rd Concession of Miller, at the Matawatchan boundry. A timber bridge with a span of 16 feet, cedar crib abutments; stringers and floor, flatted cedar; railing, cedar; stone fill at west end 45 feet long, and at east end 60 feet long. Cost of work, $100.20.

Renfrew Bridges.

Butler Bridge, Bonnechere River.—Located over the Bonnechere River at Lot 6, Bonnechere Range. The bridge is 150 feet long. The repairs consisted of raising the deck four feet to allow for the passage of the boats. The piers were built up 4 feet; new stringers were placed over the main span; all defective sections of the floor were replaced and a new railing placed on each side of the bridge. The approaches were properly graded to meet the new level of the bridge. $305.00 was expended on the work.

Calabogie Bridge.—Located over the Madawaska River at Calabogie. The timber bridge seats under the steel span—115 feet long,—were decayed. New timber seats were supplied. The plank floor was all renewed. New wheel guards also placed. The soundest plank from the old floor were used in repairing the floor in the timber approaches. The pipe railing on the steel span was repaired, and a new timber railing placed on the approaches. $427.00 was expended on the work.

Coburn Bridge, Alice.—Located over the Indian River at Grahams, in the Township of Alice. The bridge was reconstructed complete,—cedar timber throughout. Cost of bridge, $343.00.

Davis Mills Bridge, Alice.—Located over the Indian River at Lot 20, Concession 8, Alice. The bridge is 105 feet long. New stringers were placed over the main span. A new floor of cedar plank was laid throughout and a new railing installed. $427.00 was expended on the work.

Ferguson Lake Bridge.—Located over a creek on Lot 26, Concession 3, Blithfield. A long timber bridge was removed and replaced with a timber bridge with a 12-foot span. The ravine, 160 feet across, was filled to provide proper approaches to the bridge. $201.00 was expended on the work.

McMahon Bridge.—Located over a creek on the Camel Chute Road, Lot 20, Concession 5, in the Township of Matawatchan. A new timber bridge 30 feet long, built entirely of cedar. The abutments are timber cribs; stringers and floor flatted timber. The approaches are well filled with gravel. Cost of work, $86.00.

Moore Creek Bridge.—Located over Moore Creek, Lot 25, Concession 7, Admaston. A timber bridge 34 feet long. Abutments are timber cribs 8 feet wide and 10 feet high. Stringers and floor flatted cedar. The fill on the east end is 150 feet long. The fill on the west end is not completed. $100.00 was expended on the work.

PUBLIC WORKS FOR NAVIGATION.

Dredging.

During November, 1917, the Dredge continued work on the shoals on Indian River below the Port Carling Locks. In 1918 the work was resumed on May 27th in the Indian River. Three sand bars were removed from West Bay below the locks to provide more harbor room. The Dredge moved from Indian River to Gordon's Bay and opened up the cut between the Bay and Portage Lake. This cut is 425 feet long; a channel 25 feet wide and from 4 to 6 feet deep was provided. This channel is now a great convenience to the many cottagers on Portage Lake. From Gordon Bay the Dredge moved to the mouth of the Muskoka River, where a channel was opened up, a bar and log obstructions being removed from a length of 200 feet and a width of 50 feet. At the mouth of the North Branch a bar was removed from a length of 500 feet and a width of 30 feet.

Buoys were placed during the year at the following points to mark the navigable channel:—

On a shoal out from Rossclair House	1
At the mouth of Muskoka River	1
On shoals in Bala Bay	2
On channel in mouth of Indian River	5
In channel below Locks at Port Carling	3
On shoal out from Windermere	1
On shoal out from Worthington Point	1
At mouth of Portage Lake Cut	2

Port Carling.—Slight repairs were made on the swing bridge; the truss chord were spliced and repaired; defective planks were removed from the wharf platform.

Huntsville Locks.—Small repairs were made to tighten up the dam. The swing bridge was adjusted and the necessary repairs made to the flooring. Defective timbers were removed from the upper section of the locks and were replaced with new timbers.

Peninsular Canal.—Small repairs were made on the timber sheeting, and all sunken logs and other obstructions removed.

Ryerson Swing Bridge.—This bridge was overhauled. The floor on the swing and the approaches was repaired where necessary. This bridge will require to be renewed at an early date. This season, new temporary seats must be provided for the swing section as the old seats are gone beyond repair.

Magnetawan.—Considerable work was done on the dam. New timbers installed and the dam tightened up to prevent leakage. The swing bridge was overhauled and the necessary repairs made to make the bridge safe for traffic.

Ahmic Dam.—Extensive repairs were carried out. A large number of defective timbers were replaced. A new windlass was installed. This dam must be renewed at an early date as it is a difficult matter to properly control the level of Ahmic Lake with the dam in its present condition. The Knoepfli bridge just below the dam is also played out. In the renewal of the dam it is proposed to combine the bridge and dam in one structure after the style of the dam over the South Channel at Bala.

Dollar Dams.—Some new stop-logs were provided, and a serious leak under the platform of the dam was stopped with stone, brush and gravel.

Port Sandfield.—The timber pier at the north end of the swing bridge was badly decayed. The pier was taken down. New footings were provided, and new timber substituted for all the defective timbers in the old pier.

PUBLIC WORKS DRAINAGE.

The work of providing outlets for the proper drainage of roads constructed by the Colonization Roads Department was continued during the past season throughout the Northern Districts. This work has been under way since 1910, and although the yearly expenditure has been comparatively small the benefit from the drainage to roads and lands has been of untold value. The usual appropriation for Colonization Roads is not sufficient in a majority of cases to provide outlets

for the proper drainage for the low-lying sections of the roads. Without good drainage the proper maintenance of the ordinary road is impossible. To remedy this condition of affairs a small appropriation is provided each year for each of the Northern districts. The District Colonization Road Inspectors select the sections of road most in need of drainage. An Engineer of the Department examines the locality and, if deemed advisable, the work is carried out by day labour under the direction of the Road Inspector. Road drainage is effected, but the resultant benefit to the lands adjoining the drain is, in many cases, of more importance than the benefit to the roads. Thousands of acres of waste lands are reclaimed each year through this work. It is generally acknowledged that these drains, apart from the benefit to roads, return through benefit to adjoining lands one hundred per cent. on their cost each year.

Rainy River Drainage.

Curran Drain, Section 4.—The southerly end of this drain was constructed in 1916. This season the drain was extended north on the west boundary of Section 4 to the north-west corner of the Section. Thence east on the north boundary of the Section to the North Road. This drain was designed as an outlet for the North Road which it taps at a very low point. Along with draining the road it provides adequate drainage for a large area of arable land.

Fisher Drain, Section 11, *Lash.*—The easterly section of this drain on Section 12 was opend up in 1911. This season the drain was extended across the S.E. ¼ of Section 11, along the creek, a distance of 2,000 feet to a point where the creek will safely carry the increased flow of water.

Pattullo Drain, Section 5.—This drain runs south-east across Section 5 from the road west of Section 5, Pattullo, to a creek near the middle of the Section. It provides an effective outlet for the road between Sections 5 and 6, formerly undrained.

Worthington Drain, Section 32.—This drain is located on the road south of Section 32, Worthington. It extends from the road between Sections 32 and 33, west 3,400 feet to the McDonald Creek. The drain has an average depth of 2 feet 9 inches and a bottom of 4 feet. It furnishes an outlet for the drainage of the road between Sections 32 and 33. It is proposed to extend the drain north 2,600 feet to a pot hole that is badly in need of drainage.

Algoma District Drainage.

Aberdeen Drain, Concession 1.—The drain is located on Lot 2, Concession 1, Aberdeen Additional. The drain is 150 rods long, and empties into Gordon Lake. It drains the 1st Concession road and the side road through Lot 2. $139.00 was expended on the work, and the settlers contributed $30.00 in labour to complete the drain.

Aberdeen Drain, Concession 4.—This drain commences at a pot hole on Lot 1 on the road between Concessions 4 and 5, Aberdeen Additional, and runs east 60 rods to the Aberdeen Boundary, discharging into an old drain leading to McLeod's Creek. $125.00 was expended on the work.

Gladstone Drain, Concession 1.—The drain leads south from the Trunk Road through Lot 6. It is 320 rods long, and from 2 to 3 feet in depth. It provides an effective outlet for a very bad section of the Trunk Road. $296.00 was expended on the work.

Laird Drain, Section 32.—Two outlets were made on Section 32 to drain the Trunk Road, located between Sections 31 and 32. The northerly outlet is 140 rods long, and south outlet is 165 rods long. $400.00 was expended on the work.

Macdonald Drain, Section 21.—This drain, started in 1917, was continued through Section 21, a distance of 190 rods,—125 rods of this was a deviation from the watercourse to shorten the drain. $458.00 was expended on the work.

Macdonald Drain, Section 16.—A short drain through a gravel ridge on the Sylvan Valley Road, to drain a pot hole. The gravel removed was used in gravelling the road. The drain is 110 rods long. Cost, $242.00.

Macdonald Drain, Sections 31 *and* 32.—Located on the Trunk Road between Sections 31 and 32, Macdonald. The drain is 155 rods long, averages 3 feet in depth and drains a very bad section of road and low lands, adjoining the road. $97.00 was expended on the work.

Macdonald Drain, Sections 19 *and* 20.—Located on the Trunk Road between Sections 19 and 20, in Macdonald. The drain is 200 rods long and discharges into the Canadian Pacific Railway ditch near the road intersection. The drain extends south 200 rods from the railway crossing. $118.00 was expended on the work.

Plummer Additional, Concession 4.—This drain runs south-east 160 rods from the Trunk Road through Lot 6 in the Cuthbertson Location, and empties into a creek on Lot 5. It drains a bad section of the Trunk Road. $151.00 was expended on the work.

Striker Drain, Concession 2.—Located on a watercourse south of the 2nd Concession. The drain commences on Lot 11 and empties into a creek on Lot 10. It is 114 rods long, and costs $58.00.

Tarbutt Drain, Concession 7.—This drain commences on the Port Findlay Road and runs west across Lot 7 in the 7th Concession of Tarbutt Additional. The drain is 80 rods long. Cost, 100.00.

Tarbutt Drain, Concession 2.—This is an outlet 60 rods long that runs south from a small lake on the north boundary of Lot 1, Concession 2, Tarbutt. The drain lowers the water of the lake two feet, and provides drainage for a section of the Tarbutt-Johnston Boundary, formerly without drainage. Cost of work, $100.00.

Thompson Drain, Deadman Creek.—This drain is the improvement of Deadman Creek to drain a section of the Trunk Road across Sections 14 and 15, Thompson. One hundred and sixty rods of the creek was improved. The work will be extended. $80.00 was expended on the work. The drainage work in Algoma was all done under the direction of James Barkley, Road Inspector for the District.

Sudbury District Drainage.

The following drains were opened up in Sudbury District under the direction of Basile Ethier, Road Inspector:

Balfour, on Lot 2, Concession 3, length 40 rods.
" on Lots 4 and 5, Concession 2, length 320 rods.
" on Lot 1, Concession 3, length 80 rods.
" on Lot 6, Concession 3, length 160 rods.
" on Lot 8, Concession 4, length 50 rods
" on Lot 3, Concession 4, length 320 rods.
" on Lot 8, Concession 6, length 80 rods.
Blezard, on Lot 8, Concession 2, length 70 rods.
" on Lots 7, 8, 9 and 10, Concession 1, length 560 rods
Capreol, between Lots 4 and 5, Concession 1, length 320 rods.
Lumdsen, on Lots 1 and 2, Concession 1, length 85 rods.
" on Lot 7, Concession 1, length 80 rods.
Morgan, on Lot 7, Concession 1, length 80 rods.

Manitoulin District Drainage.

The following drains were opened up in the Manitoulin District under the direction of John McAnsh, Road Inspector for the District:

Allan Township, on Lot 25, Concession 15, 10 rods rock cut.
Assiginack Township, on Lot 31, Concession 5, 45 rods.
Baldwin Township, on Lots 4 and 5, Concession 1, 80 rods.
" " on Lots 7, 8, and 9, removing Beaver dams.
" " on Lot 6, Concession 2, 80 rods.
" " on 7-8 Sideroad, Concessions 4 and 5, 90 rods.
" " on 3-4 Sideroad, Concession 2, 105 rods.
Barrie Island, on Lots 11 and 12, Concession 3, 100 rods.
Bidwell Township, on 15 Sideroad, Concessions 9 and 10, 43 rods.
Billings Township, on Lot 14, Concession 10, 40 rods.
Burpee Township, on Lot 35, Concession 3, 70 rods.
Campbell Township, on Lot 10, Concession 13, 45 rods.
Carnarvon Township, on Lot 27, Concession 13, 40 rods.
Cockburn Island, on 10 Sideroad, Concessions 10 and 11, 60 rods.
Mills Township, on Lot 11, Concession 4, 60 rods.
Sandfield Township, on Lot 9, Concession 11, 50 rods.
Tehkummah Township on Lot 17, Concession B., 45 rods.
" " on Lot 13, Concession 8, 10 rods.

Sturgeon Falls District Drainage.

In the Sturgeon Falls District the following drains were opened up under the supervision of A. L. McDonald, Public Works Foreman:

Casimir, on Lots 11 and 12, Concession 3, 400 rods
" on Lot 9, Concession 3, 25 rods.
Delemere, on Lot 5, Concession 1, rock cut 50 feet.
Hugel, on Lot 2, Concessions 1 and 2, 150 rods.
" on Lot 6, Concession 3, 60 rods.
" on Lot 11, Concession 4, 100 rods.

Ratter, on Lot 1, Concession 2, 31 rods.
Springer, on Lot 6, Concession A, 75 rods.
" on Lot 8, Concession B, 65 rods.
" on Lot 1, Concession C, 30 rods.
" on Lot 9, Concession 2, 62 rods.
" on Lot 10, Concession 3, 117 rods.
" on Lot 12, Concession 4, 120 rods.
" on Lots 10 and 11, Concession 5, 130 rods

Springer, on Cache Creek Drain consisted of the removal of beaver dams and drift wood on Lot 14, Concession 5, and the removal of beaver dams and blasting rock obstructions from the channel on Lot 14, Concession 3.

Temiskaming District Drainage.

Brethour Drain, Concession 3.—This drain was constructed to divert water from the 6 and 7 Sideroad. The flow of water was rapidly wearing away the road bed. A drain was opened up through the south part of Lot 7, Concession 3, and across the 3rd Concession road. It was then carried south-east along a watercourse to Wright's Creek. The drain is 320 rods long.

Burwash Creek Drain, Casey.—This work consisted of cleaning and ditching Burwash Creek from the centre of Lot 11 in the 4th Concession of Casey, westerly one mile to good outlet. The drain was for the road in front of Lots 10 and 11 in the 4th Concession.

Casey Drain, Concession 5.—Located on the line between Lots 8 and 9, Concession 5, it commences 80 rods from the 6th Concession road, and runs south 240 rods, emptying into a branch of Wright's Creek.

Harley Drain, Concession 3.—Drain commences at the north side of the 4th Concession road of Harley, and runs south along the line between Lots 2 and 3, 120 rods, to a proper outlet.

Hilliard Drain, 6th Concession Road.—Located on the north side of the 6th Concession road in front of Lot 4. The drain is 60 rods long and drains a very wet section of road.

Moose Creek Drain, Hilliard.—This work consisted in clearing out a section of Moose Creek 250 rods long, extending from the 6 and 7 Sideline of Hilliard, easterly to 8 and 9 Sideroad. The work provides drainage for the 6 and 7 Sideroad.

Sixth Concession Drain, Dymond.—This drain commences at the 8 and 9 Sideline of Dymond, runs east along the north Townline 30 rods to a water course, thence south along the water course 120 rods to a proper outlet. It provides drainage for a wet section at the junction of the 8 and 9 Sideline and the Townline.

Nipissing District Drainage

The following drains were opened up in the District of Nipissing under the direction of P. Rochefort, Colonization Road Inspector for the district:

Bonfield Township, on Lots 24 and 25, Concession 1, 80 rods.
" " on Lot 26, Concessions 1 and 2, 75 rods.
" " on Lot 9, Concession 7, 60 rods.
" " on Lots 2 and 3, Concession 7, 85 rods.
" " on Lot 16, Concession 9, 50 rods.
" " on Lots 15 and 16, Concession 10, 105 rods.

Boulter Township, on Lots 10 and 11, Concession 12, 105 rods.
Chisholm Township, on Lot 4, Concession 10, 50 rods.
" " on Lot 4, Concession 11, 25 rods.
" " on Lot 19, Concessions 12 and 13, 40 rods.
" " on Lots 15 and 16, Concessions 12 and 13, 110 rods.
" " on Lots 19 and 20, Concessions 12 and 13, 160 rods.
" " on Lot 20, Concession 13, 100 rods.
" " on Lots 21 and 22, Concession 15, 80 rods.
" " on Lot 5, Concession 17, 60 rods.
" " on Lots 6 and 7, Concession 17, 75 rods.
" " on Lots 8 and 9, Concession 18, 105 rods.
" " on Lot 7, Concession 18, 40 rods.
Ferris Township on Lot 18, Concession 1, 45 rods.
" " on Lot 19, Concession 2, 205 rods.
" " on Lot 22, Concession 3, 50 rods.
" " on Lot 27, Concession 4, 60 rods.
" " on Lot 27, Concession 4, 25 rods.
" " on Lot 27, Concession 5, 80 rods.
" " on Lots 15 and 16, Concession 5, 110 rods.
" " on Lots 8 and 9, Concession 6, 75 rods.
" " on Lots 14 and 15, Concession 6, 70 rods.
" " on Lot 9, Concession 7, 60 rods.
" " on Lots 10 and 11, Concession 7, 55 rods.
" " on Lot 16, Concession 10, 40 rods.
" " on Lot 17, Concession 10, 175 ft. rockcut.
" " on Lot 21, Concession 10, 65 rods.
" " on Lot 15, Concession 13, 80 rods.
" " on Lot 13, Concession 14, 40 rods.
" " on Lot 10, Concession 15, 110 rods
" " on Lot 7, Concession 12, 80 rods
Papineau Township, on Lots 6 and 7, Concessions 11 and 12, 160 rods.
" " on Lots 12 and 13, Concession 12, 60 rods.
" " on Lots 13 and 14, Concession 10, 100 rods.
Widdifield Township, on Lot 22, Concession C, 140 rods.

Parry Sound District Drainage.

Williams Rock Cut, Concession 7.—Located on Lot 11, Concession 7, Carling Township. The work consisted of a rock cut 76 feet long, from 1 to 2½ feet deep and 6 feet wide. Twenty rods of the creek was also cleared out. The work drained a bad section of road and a large area of land.

Hailstone Drain.—Situate between Lots 65 and 66 in the 12th Concession of Carling. It is a rock cut 85 ft long, 2½ feet deep, and from 4 to 5 feet in width. The rock cut effectively drains a half-mile section of road that was formerly overflowed at every heavy rain fall. It also drains some 75 acres of land hitherto useless from lack of drainage.

Muskoka District Drainage.

Macaulay Draper Townline Drain.—This work consisted in removing beaver dams and rock obstructions from Sharp's Creek to relieve several sections of road from flooding. The work was done on Lots 9 and 11, Concessions 14 and 19, Macaulay.

Baysville Road Drain, Lot 30.—This work consisted of 160 rods of ditching and several rock cuts to provide drainage for a section of road on Lots 29 and 30, Concession 7, Macaulay.

Long Lake Drain.—This work consisted of removing rock from the creek below Long Lake, building up a road bed along creek, thus avoiding a steep sandy hill. The work in Muskoka was done under the direction of William Lowe, Public Works Foreman.

East Simcoe District Drainage.

The following drains were opened up in the District of East Simcoe under the direction of R. C. Hipwell, Road Inspector for the District.

Medonte, on N.E. part Lot 5, Concession 12, 60 rods.
Medonte, on 20-21 Sideroad, Concession 12, 80 rods.
Orillia, on Lot 17, Concession 6, 40 rods.
Orillia, on Lot 11, Concession 4, 33 rods.
Oro, on 11th Concession Road, Lots 4 and 5, 180 rods.
Oro, on 11th Concession Road, Lot 14, 180 rods.
Tay, on Lot 17, Concession 6, 40 rods.
Tay, on Lot 11, Concession 4, 33 rods.

Fourth Concession Drain, Amabel.—This drain was designed to drain a swamp know as "Sink Hole," situate at Lot 12 on road east of Range C. A small lake in the 5th Concession of Amabel is the outlet for the swamp, which extends south-west a couple of miles, crossing two roads. An old dam situate on Lot 19, Concession 6, holds back the water in the lake and backs it up through the swamp. The work composed opening up a good outlet from the lake to and through the dam, a distance of about 600 feet. Through the dam the cut is 20 feet wide and 8 feet deep, and from the dam to the lake the cut is 15 feet wide and from 2 to 4½ feet deep. The cut reduced the level of the lake 4½ feet, providing this depth for the drainage of the swamp. From the lake to the "Sink Hole" the bed of the creek was cleared of logs, brush and rubbish to allow the free flow of water. $662.00 was expended on the work, and it is proposed to expend a further sum of $150.00 on the creek section next season.

Horseshoe Creek Drain.—This work is the improvement of a creek on Lot 20 in the 12th Concession, and Lot 19 in the 11th Concession of Storrington. $100.00 was expended in completing a rock cut on Lot 20 which had been partly opened up in 1917. $300.00 was expended in the improvement,—deepening and widening of the creek below the rock cut, on Lot 19 in the 11th Concession.

Drainage Aid.

During the past year no grants were made to drainage works under the Provisions of "The Provincial Aid to Drainage Act," but a number of drainage schemes for which aid has been asked have been examined and reports filed.

General Work.

During the year plans were prepared for the new water supply at the Hospital for the Feeble Minded at Orillia. This work involved the installation of 1,980 feet of 14-inch wood stave pipe line, the construction of a concrete reservoir of a 20,000 gallon capacity, and the erection of a 75,000 gallon steel tank, 125 feet high.

Plans were prepared for a water supply at the Agricultural School at Kemptville. This involved the placing of 550 feet of intake pipe line, and the installation of pumps, compressor tank, etc.

Plans were prepared for a steel bridge on masonry abutments to be erected over the Kapuskasing River, and for timber bridges on the Black and Driftwood Rivers, in the Matheson District. These bridges are to be constructed by the Northern Development Branch.

For the Fisheries Department surveys were made and plans prepared for a new box pipe line about half a mile long, leading from the storage pond to the Normandale Fish Hatchery. Heretofore the water was carried from the pond to the hatchery in an open drain. Snow drifts during the winter seriously interfered with the flow of the water in the open drain. A covered drain was installed and a constant supply of water is assured.

For the new Hatchery at Port Arthur plans were also prepared.

I have the honour to be, Sir,

Your obedient servant,

A. J. Halford,

Engineer Public Works.

REPORT OF THE SUPERINTENDENT OF COLONIZATION ROADS.

The Honourable F. G. Macdiarmid,

The Minister of Public Works and Highways, Ontario.

Sir,—I herewith submit a report of the work performed by the Colonization Roads Branch of the Department of Public Works, during the season ending October 31st, 1918.

Labour conditions generally, the increased cost of supplies, machinery and equipment, and the excessively rainy weather during the latter part of the season in the eastern and north-eastern parts of the Province, added to the cost of doing work, greatly hampered its progress, and prevented the accomplishment of as much work as we had expected to do.

The total expenditure was $268,415.38, part of this viz., $183,230.90 was expended directly, and the balance $85,184.48, was under the provisions of the Colonization Roads Act.

The following is a summary of the total work performed:—

Direct Grants

New Road, mileage	57.68
Old Road, mileage	544.46
Culverts	790
Bridges	45

By-Laws

New Road, mileage	19.80
Old Road, mileage	685.05
Culverts	536
Bridges	30

A great deal of the expenditure, more particularly where the Municipatities undertook the work, was made improving existing roads. The time has been reached when many of these Municipalities cannot fairly claim much further expenditure of public money for Colonization Road purposes within their borders, some of them are now quite able to finance their own road construction, while others are being aided directly or indirectly under the Highway Improvement Act.

On account of our limited engineering and surveying staff, it is difficult to give our foremen and overseers all the instruction and attention they should properly have, or to keep our maps as thoroughly accurate and up to date as they should be. These are important matters, work should be carefully laid out efficiently carried on and properly recorded.

All of which is respectfully submitted,

I have the honour to be, Sir,

Your obedient servant,

C. H. Fullerton,

Superintendent of Colonization Roads.

Dated at Toronto, October 31st, 1918.

SCHEDULE SHOWING AMOUNT OF ROAD CONSTRUCTION UNDER THE COLON

NUMBER	NAME AND LOCATION OF WORK	NEW ROAD							DITCHED
		Cleared and Stumped		Graded and Shaped		SURFACED			
		Length, rods	Width, feet	Length, rods	Width, feet	Material	Length, rods	Width, feet	Length, rods
	NORTH DIVISION.								
1	Aberdeen, lot 2, con. 2	.....	....	.....	....	.....	.....	....	.....
2	Aberdeen, cons. 2-3, lots 11-12	.....	....	.....	....	.....	.....	....	60
3	Aberdeen, Wings Road, con. 3	.....	....	.....	....	.....	.....	....	20
4	Aberdeen Additional, lot 1 con. 1	.....	....	.....	....	.....	.....	....	20
5	Aberdeen Additional, lot 2, con. 3	.....	....	.....	....	.....	.....	....	.....
6	Allan, con. 10, lots 23-25	.....	....	.....	....	.....	.....	....	.....
7	Allan unorganized, cons. 4-6	.....	....	.....	....	.....	.....	....	.....
8	Allan unorganized, lot 2, con. 10	.....	....	.....	....	.....	.....	....	.....
9	Assiginack, con. 2, lot 19	.....	....	.....	....	.....	.....	....	.....
10	Assiginack, cons. 15-16, townline	.....	....	.....	....	.....	.....	....	.....
11	Assiginack, con. 2, lot 15, townline	.....	....	.....	....	.....	.....	....	.....
12	Assiginack, lots 9-10, con. 12	100	24	100	24	.....	.....	....	.....
13	Aubrey, lots 8-9, cons. 5-6	.....	....	.....	....	.....	.....	....	.....
14	Baldwin, lots 7-8, cons. 4-5	118	24	118	24	.....	.....	....	.....
15	Baldwin, lot 5, con. 1	.....	....	.....	....	.....	.....	....	.....
16	Balfour, lots 5-6, con. 6	.....	....	.....	....	.....	.....	....	160
17	Barrie Island, cons. 6-8	.....	....	.....	....	.....	.....	....	.....
18	Bidwell, sideroad, cons. 6-10	.....	....	.....	....	.....	.....	....	.....
19	Bidwell, 15th sideroad, cons. 10-11	.....	....	.....	....	.....	.....	....	.....
20	Bidwell, lots 24-25, cons. 8-10	.....	....	.....	....	.....	.....	....	.....
21	Billings, 8th con. lot 19	.....	....	.....	....	.....	.....	....	.....
22	Billings, lot 20-21, cons. 10-12	.....	....	.....	....	.....	.....	....	.....
23	Billings and Bidwell townline	.....	....	.....	....	.....	.....	....	.....
24	Billings, 20th sideroad, con. 2-8	.....	....	.....	....	.....	.....	....	16
25	Bright, con. 5, lots 7-8	.....	....	.....	....	.....	.....	....	.....
26	Bright, con. 5, lot 1	.....	....	.....	....	.....	.....	....	30
27	Broder, Kelly Lake to Long Lake Rd.	.....	....	.....	....	.....	.....	....	.....
28	Broder, lot 7, con. 6	.....	....	.....	....	.....	.....	....	.....
29	Broder, lot 12, cons. 4-5	.....	....	.....	....	.....	.....	....	.....
30	Broder, lot 1, con. 4	.....	....	.....	....	.....	.....	....	.....
31	Broder, lot 1-2, cons. 4-5	160	35	.....	....	.....	.....	....	.....
32	Broder, lots, 6-7, cons. 2-3	.....	....	.....	....	.....	.....	....	240
33	Broder, lot 7, con. 2	.....	....	.....	....	.....	.....	....	53
34	Burpee, 35th sideroad, con. 4	.....	....	.....	....	.....	.....	....	.....
35	Burpee, lots 32-33, con. 6-8	.....	....	.....	....	.....	.....	....	28
36	Burpee, lots 19-20, con. 8	.....	....	.....	....	.....	.....	....	.....
37	Burpee, lots 3-18	.....	....	.....	....	.....	.....	....	.....
38	Burpee, 25th sideroad, con. 8	.....	....	.....	....	.....	.....	....	.....
39	Burpee, 25th sideroad west	.....	....	.....	....	.....	.....	....	.....
40	Burpee, lots 27-28	.....	....	.....	....	.....	.....	....	.....
41	Burpee, lots 36-37, con. 6	.....	....	.....	....	.....	.....	....	.....
42	Campbell Tp., lot 8, con. 7	.....	....	.....	....	.....	.....	....	.....
43	Campbell, 10th con., lots 3-7	.....	....	.....	....	.....	.....	....	.....
44	Campbell, con. 8, lots 26-27	.....	....	.....	....	.....	.....	....	.....
45	Campbell, lots 25-26, con. 2	.....	....	.....	....	.....	.....	....	.....
46	Campbell, con. 8, lot 28	.....	....	.....	....	.....	.....	....	.....
47	Capreol, con. 5	80	24	320	12	.....	.....	....	.....
48	Capreol, lots 11-12, cons. 2-3	.....	....	.....	....	.....	.....	....	640
49	Carnarvon, con. 6, lots 23-24	.....	....	.....	....	.....	.....	....	.....
50	Carnarvon, lots 4-19	.....	....	.....	....	.....	.....	....	.....
51	Carnarvon, lots 13-14, con. 6	.....	....	.....	....	.....	.....	....	.....
52	Cobden, lot 3, con. 3	.....	....	.....	....	.....	.....	....	.....
53	Cockburn Island, cons. 10-11, lots 15-16	.....	....	.....	...	.....	.....	....	.....

IZATION ROADS BRANCH, DEPARTMENT OF PUBLIC WORKS, ONTARIO, 1918.

BRIDGES			CULVERTS		CUT* AND FILL		OLD ROAD							MILEAGE	EXPENDITURE	NUMBER
							Side-Brushed		Graded and Shaped		SURFACED					
Number	Span	Material	Number	Material	Material	Cubic yards	Length, rods	Width, feet	Length, rods	Width, feet	Material	Length, rods	Width, feet		$ c.	
...	...	.....	...	.....	earth	120	.....	..	160	20	gravel	160	5	.5	250 95	1
...	...	.....	...	.....	.....	.....	.....	..	160	20	gravel	40	5	.5	299 95	2
...	...	.....	...	.....	earth	130	.....	..	160	20	gravel	20	5	.5	299 98	3
...	...	.....	...	.....	.....	.....	.....	..	60	20	gravel	240	5	1.0	302 08	4
...	...	.....	1	wood	earth	115	.....	..	160	20	gravel	90	5	.5	400 00	5
...	...	.....	...	.....	.....	.....	.....	..	.....	..	gravel	98	7	.3	101 25	6
...	...	.....	2	cedar	.....	.....	80	10	138	24	gravel	133	6	.4	200 70	7
...	...	.....	...	.....	rock*	100	.....	..	.....	..	gravel	52	7	.2	148 04	8
...	...	.....	...	.....	.....	.....	.....	..	.....	..	gravel	100	7	.3	150 00	9
...	...	.....	...	.....	earth	250	100	8	.....	..	gravel	20	7	.3	101 00	10
...	...	.....	...	.....	.....	.....	.....	..	42	20	gravel	115	7	.3	150 00	11
...	...	.....	...	.....	.....	.....	.....	..	.....	..	.....	.....	..	.3	100 60	12
...	...	.....	4	wood	earth	100	.....	..	800	24	gravel	800	24	2.5	148 87	13
...	...	.....	...	.....	earth	50	.....	..	.....	..	.....	.....	..	.3	150 00	14
...	...	.....	...	.....	.....	.....	.....	..	240	22	.....	.....	..	.75	105 75	15
...	...	.....	...	.....	.....	.....	160	12	160	8	.....	.....	..	.5	51 75	16
...	...	.....	1	cedar	.....	.....	.....	..	225	24	gravel	300	7	.9	300 00	17
...	...	.....	...	.....	.....	.....	.....	..	.....	..	gravel	136	6	.42	150 00	18
...	...	.....	...	.....	.....	.....	.....	..	100	16	gravel	90	7	.31	200 48	19
...	...	.....	...	.....	.....	.....	.....	..	.....	..	gravel	54	7	.16	104 87	20
...	...	.....	...	.....	.....	.....	.....	..	78	24	gravel	78	7	.25	100 00	21
...	...	.....	...	.....	.....	.....	.....	..	.....	..	gravel	76	..	.24	100 50	22
...	...	.....	...	.....	.....	.....	80	10	80	24	gravel	22	7	.25	102 88	23
...	...	.....	...	.....	rock	90	.....	..	.....	..	gravel	53	7	.21	115 51	24
...	...	.....	1	rock	.....	.....	20	6	15	18	gravel	160	5	.53	399 78	25
...	...	.....	...	.....	.....	.....	.....	..	.....	..	gravel	240	5	.75	400 00	26
...	...	.....	...	.....	.....	.....	.....	..	640	9	.....	.....	..	2.0	200 80	27
...	...	.....	...	.....	.....	.....	.....	..	160	8	.....	.....	..	.5	73 58	28
...	...	.....	...	.....	.....	.....	.....	..	160	9	.....	.....	..	.5	100 00	29
1	14	wood	...	.....	.....	.....	.....	..	80	16	.....	.....	..	.25	100 88	30
...	...	.....	...	.....	.....	.....	.....	..	.....	..	.....	.....	..	.5	150 87	31
1	16	wood	3	wood	.....	.....	.....	..	240	12	.....	.....	..	.75	200 00	32
...	...	.....	2	wood	.....	.....	.....	..	80	15	.....	.....	..	.25	100 00	33
...	...	.....	1	rock	.....	.....	.....	..	96	24	gravel	32	7	.30	100 88	34
...	...	.....	...	.....	.....	.....	.....	..	.....	..	gravel	44	8	.13	99 48	35
...	...	.....	...	.....	earth	100	.....	..	.....	..	gravel	52	7	.15	100 00	36
...	...	.....	1	cedar	.....	.....	.....	..	.....	..	gravel	400	5	3.25	149 86	37
...	...	.....	1	rock	.....	.....	.....	..	180	16	gravel	44	7	.56	100 00	38
...	...	.....	...	.....	.....	.....	.....	..	240	16	gravel	46	7	.75	101 87	39
...	...	.....	...	.....	.....	.....	.....	..	.....	..	gravel	48	7	.13	100 00	40
...	...	.....	1	rock	rock	30	.....	..	108	24	gravel	32	6	.32	99 00	41
...	...	.....	...	.....	clay	200	.....	..	.....	..	gravel	80	7	.25	151 17	42
...	...	.....	...	.....	.....	.....	.....	..	182	16	gravel	182	6	1.25	199 96	43
...	...	.....	...	.....	.....	.....	.....	..	100	16	gravel	60	6	.31	100 00	44
...	...	.....	...	.....	.....	.....	.....	..	124	24	gravel	196	7	.60	200 50	45
...	...	.....	...	.....	stone	100	.....	..	.....	..	gravel	22	8	.06	90 00	46
...	...	.....	...	.....	.....	.....	.....	..	.....	..	.....	.....	..	1.0	251 00	47
...	...	.....	...	.....	.....	.....	.....	..	320	15	.....	.....	..	1.0	109 75	48
...	...	.....	...	.....	.....	.....	.....	..	53	16	gravel	63	7	.19	100 00	49
...	...	.....	...	.....	.....	.....	.....	..	30	16	gravel	328	6	1.0	300 00	50
...	...	.....	2	concrete	stone	85	.....	..	.....	..	gravel	41	7	.12	200 00	51
...	...	.....	1	wood	.....	.....	40	8	.....	..	gravel	96	5	.41	199 99	52
...	...	.....	...	.....	clay	19	40	8	20	16	gravel	124	7	.38	150 88	53

SCHEDULE SHOWING AMOUNT OF ROAD CONSTRUCTION UNDER THE COLON

NUMBER	NAME AND LOCATION OF WORK	NEW ROAD							DITCHED
		Cleared and Stumped		Graded and Shaped		SURFACED			
		Length, rods	Width, feet	Length, rods	Width, feet	Material	Length, rods	Width, feet	Length, rods
	NORTH DIVISION.—*Continued.*								
54	Conmee, cons. 3-5, lots 1-7	350	40	105	18	earth	105	18	327
55	Dawson Road, con. A-B, lot 54	.....	....	.....	....	.....	.....	....	80
56	Dawson, lots 1-9	.....	....	.....	....	.....	.....	....	.....
57	Dawson, lots 25-26, con. 12	.....	....	.....	....	.....	.....	....	.....
58	Dawson, 25th sideroad, con. 10-11	.....	....	.....	....	.....	.....	....	.....
59	Day and Thessalon, townline, lot 12-19	80	30	70	18	gravel	20	5	70
60	Dill, lot 8-9, cons. 4-5	.....	....	.....	....	.....	.....	....	.....
61	Dorion, lots 2-12, cons. 2-6	160	....	.....	....	.....	.....	....	344
62	Dowling, lot 2, con. 2	.....	....	.....	....	.....	.....	....	320
63	Dowling, Larchwood Road	.....	....	.....	....	.....	.....	....	.....
64	Dryden, lot 11-12, con. 6	.....	....	.....	....	.....	.....	....	160
65	Dryden, lot 11, con. 5	.....	....	.....	....	.....	.....	....	80
66	Dryden, lot 12, con. 6	.....	....	.....	....	.....	.....	....	160
67	Eton, lots 6-7, con. 2	.....	....	.....	....	.....	.....	....	480
68	Fairbank, lot 4, con. 6	.....	....	240	12	.....	.....	....	240
69	Fairbank, lots 1-5, and lots 4-5	.....	....	.....	....	.....	.....	....	.....
70	Fenwick, Stoney Point Road	.....	....	90	8	gravel	14	6	.....
71	Fenwick, Goulais Settlement Road	.....	....	.....	....	.....	.....	....	.....
72	Galbraith, cons. 2-3	.....	....	.....	....	.....	.....	....	.....
73	Galbraith, Aberdeen Townline Road	.....	....	.....	....	.....	.....	....	.....
74	Gillies Tp. roads	400	40	.....	....	gravel	20	6	36
75	Gladstone & Patton Boundary Road	.....	....	.....	....	.....	.....	....	.....
76	Gordon, lot 3, cons. 13-14	.....	....	.....	....	.....	.....	....	.....
77	Gordon, con. 8, to Townline Road	.....	....	.....	....	.....	.....	....	.....
78	Gordon, con. 7, lot 14-15	.....	....	.....	....	.....	.....	....	.....
79	Gordon, con. 8, lots 13-14	.....	....	.....	....	.....	.....	....	.....
80	Gordon, cons. 4-6	.....	....	.....	....	.....	.....	....	.....
81	Gorham, Sam Hill Section	640	40	325	18	gravel	325	18	.....
82	Gorham, Laurie Section	.....	....	.....	....	.....	.....	....	.....
83	Gould, con. 2, lots 8-10	400	40	.....	....	.....	.....	....	.....
84	Hagar, lots 1-6, cons. 4-5	.....	....	.....	....	.....	.....	....	960
85	Hagar, lots 8-9, con. 5	.....	....	.....	....	.....	.....	....	640
86	Hagar, lots 8-9, con. 5 and bridge	.....	....	.....	....	.....	.....	....	80
87	Hagar, lots 12-13, con. 5	320	50	.....	....	.....	.....	....	.....
88	Hagar, con. 2, South Bridge Road	.....	....	.....	....	.....	.....	....	320
89	Hagar, con. 1	.....	....	.....	....	.....	.....	....	.....
90	Hagar, lot 14, con. 6	.....	....	.....	....	.....	.....	....	640
91	Hagar, lots 12-13, con. 5, Gillies Sec.	.....	....	160	9	.....	.....	....	80
92	Hallam, lots 9-12, con. 6	.....	....	.....	....	.....	.....	....	.....
93	Hallam, lots 6, con. 5	.....	....	.....	....	.....	.....	....	.....
94	Hilton, Canoe Point Road	360	30	.....	....	.....	.....	....	.....
95	Howland, 10th Sideroad, con. 6	.....	....	.....	....	.....	.....	....	20
96	Howland, con. 1, lots 7-8	.....	....	.....	....	.....	.....	....	.....
97	Howland, lots 7-8, con. 10	.....	....	.....	....	.....	.....	....	.....
98	Howland, Burnett's Hill, Townline Rd.	.....	....	.....	....	.....	.....	....	.....
99	Jocelyn, con. 2, 5th-10th sideroad	.....	....	.....	....	.....	.....	....	.....
100	Jocelyn, P. line, lot 5	.....	....	.....	....	.....	.....	....	30
101	Johnson, lot 1, con. 4	.....	....	.....	....	.....	.....	....	40
102	Johnson, N.½, block N.	.....	....	.....	....	.....	.....	....	.....
103	Johnson, Pt. Lock and Gordon Lake Road	.....	....	.....	....	.....	.....	....	100

IZATION ROADS BRANCH, DEPARTMENT OF PUBLIC WORKS, ONTARIO, 1918.

BRIDGES			CULVERTS		CUT* AND FILL		OLD ROAD							MILEAGE	EXPENDITURE	NUMBER
							Side-Brushed		Graded and Shaped		SURFACED					
Number	Span	Material	Number	Material	Material	Cubic yards	Length, rods	Width, feet	Length, rods	Width, feet	Material	Length, rods	Width, feet		$ c.	
...	...	.....	12	wood	earth	240	60	40	40	18	gravel	40	18	2.43	749 65	54
2	24	wood	...	.....	earth	100	1,040	15	.....	..	.....	.....	..	3.25	500 00	55
...	...	.....	1	cedar	.....	.....	560	8	560	16	gravel	100	6½	1.75	133 05	56
...	...	.....	...	.....	clay	100	40	8	.....	..	gravel	136	6	.12	99 00	57
...	...	.....	...	.....	.....	.....	.....	..	60	16	gravel	122	6	.37	150 00	58
...	...	.....	...	.....	.....	.....	.....	..	.....	..	.....	.....	..	.31	349 05	59
...	...	.....	3	wood	.....	.....	.....	..	320	10	.....	.....	..	1.00	192 62	60
3	20	wood	17	wood	earth	90	160	7	340	18	gravel	957	16	4.15	1,278 43	61
...	...	.....	1	wood	.....	.....	160	32	160	16	.....	.....	..	.5	197 50	62
...	...	.....	...	.....	.....	.....	.....	..	480	16	.....	.....	..	1.5	60 75	63
...	...	.....	...	.....	.....	.....	.....	..	160	13	.....	.....	..	.5	150 50	64
...	...	.....	2	wood	.....	.....	.....	..	160	12	.....	.....	..	1.0	150 00	65
...	...	.....	3	wood	.....	.....	160	12	160	12	.....	.....	..	.50	101 75	66
...	...	.....	2	wood	earth	700	320	30	.....	..	gravel	640	30	2.0	200 87	67
...	...	.....	2	wood	.....	.....	.....	..	.....	..	.....	.....	..	.75	110 00	68
...	...	.....	5	wood	.....	.....	.....	..	960	15	.....	.....	..	3.0	204 50	69
1	18	woodR	1	cedar	earth	100	120	6	180	18	gravel	59	6	2.0	500 00	70
...	...	.....	...	.....	earth	160	320	16	.....	..	gravel	200	6	2.5	749 00	71
...	...	.....	...	.....	earth*	120	500	40	720	20	gravel	20	3	2.75	500 60	72
					earth	100										
					earth*	1,500										
...	...	.....	...	.....	earth	2,833	.....	..	20	24	gravel	20	5	.06	400 00	73
...	...	.....	10	wood	earth	313	320	40	240	24	gravel	325	24	2.31	752 12	74
...	...	.....	...	.....	.....	.....	.....	..	25	18	gravel	160	5	.75	350 00	75
...	...	.....	...	.....	.....	.....	.....	..	84	24	gravel	71	7	.26	100 74	76
...	...	.....	...	.....	.....	.....	.....	..	142	16	gravel	170	6	.53	200 00	77
...	...	.....	...	.....	stone	12	.....	..	120	16	gravel	76	7	.37	200 00	78
...	...	.....	1	concrete	clay	75	.....	..	100	16	gravel	56	7	.31	201 00	79
...	...	.....	1	concrete	.....	.....	.....	..	20	24	gravel	91	7	.28	201 15	80
1	18	wood	6	wood	earth	98	.....	..	25	18	gravel	665	7	4.0	1,625 00	81
...	...	.....	...	.....	.....	.....	.....	..	380	24	gravel	1,020	7	2.0	450 00	82
1	14	wood	...	.....	.....	.....	.....	..	.....	..	.....	.....	..	1.31	489 00	83
...	...	.....	4	wood	.....	.....	.....	..	640	10	.....	.....	..	3.0	301 75	84
...	...	.....	13	wood	.....	.....	.....	..	320	15	.....	.....	..	1.0	399 68	85
1	12	wood	6	wood	.....	.....	320	40	.....	..	.....	.....	..	1.0	200 00	86
2	18	wood	4	wood	.....	.....	.....	..	.....	..	.....	.....	..	1.0	303 87	87
...	...	.....	...	.....	.....	.....	.....	..	160	10	.....	.....	..	1.0	215 00	88
...	...	.....	3	wood	.....	.....	40	30	240	12	.....	.....	..	.75	150 50	89
...	...	.....	3	wood	.....	.....	.....	..	320	12	.....	.....	..	2.0	302 24	90
...	...	.....	...	.....	.....	.....	.....	..	.....	..	.....	.....	..	.5	100 00	91
...	...	.....	...	.....	earth	*54	.....	..	320	18	gravel	80	5	1.0	350 00	92
						60										
...	...	.....	3	wood	earth	500	.....	..	480	22	.....	.....	..	1.5	349 98	93
...	...	.....	...	.....	.....	.....	.....	..	.....	..	.....	.....	..	1.06	200 00	94
...	...	.....	3	cedar	.....	.....	40	10	.....	..	gravel	48	7	.14	100 00	95
...	...	.....	...	.....	.....	.....	.....	..	.....	..	gravel	66	7	.19	150 00	96
...	...	.....	...	.....	clay	66	.....	..	.....	..	gravel	50	7	.15	149 50	97
...	...	.....	...	.....	clay	250	.....	..	.....	..	gravel	25	9	.07	201 65	98
...	...	.....	...	.....	.....	.....	160	16	.....	..	gravel	160	5	.5	200 00	99
...	...	.....	...	.....	earth	150	.....	..	40	22	gravel	40	5	.18	300 49	100
...	...	.....	...	.....	.....	.....	80	30	80	20	gravel	60	5	.75	250 57	101
...	...	.....	1	concrete	earth	50	.....	..	150	18	gravel	140	5	.5	300 00	102
...	...	.....	...	.....	earth	100	.....	..	120	24	gravel	80	5	.75	350 56	103

SCHEDULE SHOWING AMOUNT OF ROAD CONSTRUCTION UNDER THE COLON

NUMBER	NAME AND LOCATION OF WORK	NEW ROAD							DITCHED
		Cleared and Stumped		Graded and Shaped		SURFACED			
		Length, rods	Width, feet	Length, rods	Width, feet	Material	Length, rods	Width, feet	Length, rods
	NORTH DIVISION.—*Continued.*								
104	Johnson, con. 5, Hinck's location	100	35	80	20				40
105	Kirkwood, con. 4, lot 5								
106	Laird, sec. 8-9, Government Road								60
107	Laird, secs. 3-10								
108	Lefroy, sec. 15 Road								
109	Lefroy, Hopper sideroad								
110	Lefroy, Dump Road, Ansonia N.								
111	Lorne, lots 11-12, con. 4								
112	Loughrin, lots 12-13, con. 6								
113	Lumsden Boundary Road of Rayside								480
114	Lumsden, cons. 1-2								
115	Lumsden, lots 3-4, con. 1								
116	Lybster Tp. Roads								12
117	Marks Tp. Roads	480	40	38	18	gravel	30	18	80
118	May, lot 1, con. 4								
119	May, con. 11, lot 2								30
120	May and Harrow townline								
121	Mellick, lots 2-12, cons. 2-8	80	22	80	22	gravel	80	22	
122	Merritt, lot 11, con. 2			70	22				
123	Merritt, con. 4, lot 4	100	40	30	22				
124	McDonald and Meredith, sec. 25-30								
125	McDonald, sec. 33								30
126	McDonald, secs. 35-36								
127	McKim, lot 3, con. 2								
128	McKim, Ramsay Lake Road	160	50	160	15				320
129	McKim, lots 1-4, con. 5 (accountable)								
130	McIntyre & Oliver, lot 27-57								
131	Mills, lots 21-25, con. 6								
132	Mills, cons. 3-4, 10th sideroad								
133	Mills, cons. 7-8, 10th sideroad								
134	Morgan, lot 2, con. 1	30	30						480
135	Morgan, lots 1-4, con. 2	320	20	320	12				
136	Morgan, lot 5								320
137	Mutrie, lots 6-7, cons. 2-3								480
138	Nairn, lots 1-2, con. 4								
139	Nipigon, lots 13-15, cons. 4-5	1,120	20	160	16				
140	O'Connor, lot 1-3, cons. 2-3								40
141	Park Tp., Point Aux Pins Road								
142	Parkinson, Seabrook Northerly Road	25	30			gravel	25	5	40
143	Parkinson, lots 7-8, con. 6								
144	Paipoonge, 15th sideline, con. 4								
145	Pearson, lots 2-17, con. 1-5	560	40	40	18	gravel	100	18	
146	Plummer, lot 2, con. 4								200
147	Plummer Additional, lot 7-8								100
148	Plummer Additional, from Pratts	100	20	80	18				80
149	Plummer Additional, lot 8, con. 6	30	10	40	20	gravel	30	5	60
150	Plummer and Rose townline								
151	Robinson, 20th sideroad, con. 8								
152	Robinson, lots 20-21								
153	Salter Broken Front Road	173	40	173	21				20

IZATION ROADS BRANCH, DEPARTMENT OF PUBLIC WORKS, ONTARIO, 1918.

BRIDGES			CULVERTS		CUT* AND FILL		OLD ROAD						MILEAGE	EXPENDITURE	NUMBER
							Side-Brushed		Graded and Shaped		SURFACED				
Number	Span	Material	Number	Material	Material	Cubic yards	Length, rods	Width, feet	Length, rods	Width, feet	Material	Length, rods / Width, feet		$ c.	
...	...	.....	2	wood	earth	*15 / 200	...	..	.....	..	.....	....	.5	401 41	104
1	16	wood	...	.....	earth	*70 / 60	...	..	100	18	gravel	90 5	.37	399 25	105
...	...	.....	...	.....	.....	.....	.....	..	.....	..	gravel	160 5	.56	300 00	106
...	...	.....	...	.....	.....	.....	.....	..	.....	..	gravel	180 5	.56	299 52	107
...	...	.....	...	.....	earth	30	.....	..	.....	..	gravel	150 5	.50	304 19	108
...	...	.....	...	.....	earth	*200 / 250	...	..	30	24	gravel	90 5	.50	299 97	109
...	...	.....	...	.....	.....	.....	.....	..	70	18	gravel	110 5	.75	158 04	110
...	...	.....	2	cedar	.....	.....	.....	..	50	16	gravel	78 7	.24	103 75	111
...	...	.....	...	.....	.....	.....	.....	..	320	10	.....	....	1.0	151 55	112
...	...	.....	...	.....	.....	.....	.....	..	320	15	.....	....	1.50	181 45	113
...	...	.....	...	.....	.....	.....	.....	..	320	8	.....	....	1.0	50 00	114
...	...	.....	...	.....	.....	.....	.....	..	320	10	.....	....	1.0	150 00	115
1	14	woodR	8	wood	earth	35	320	24	336	18	gravel	336 7	7.75	499 85	116
...	...	.....	16	wood	.....	.....	.....	..	720	18	gravel	720 8	5.75	600 00	117
...	...	.....	...	.....	earth	20* 30	160	12	560	22	.....	....	1.75	350 60	118
...	...	.....	1	wood	earth	30	.....	..	165	24	gravel	87 5	.51	350 50	119
...	...	.....	...	.....	.....	.....	160	10	640	20	gravel	140 5	2.0	349 66	120
...	...	.....	3	wood	.....	.....	160	22	160	22	gravel	160 22	.75	197 37	121
...	...	.....	1	cedar	earth	280	.....	..	.....	..	.....	....	.21	150 00	122
...	...	.....	...	.....	.....	.....	.....	..	.....	..	.....	....	.09	100 00	123
...	...	.....	...	.....	.....	.....	.....	..	40	20	gravel	90 5	.37	249 95	124
...	...	.....	...	.....	.....	.....	.....	..	40	20	gravel	150 5	.59	249 75	125
...	...	.....	...	.....	.....	.....	.....	..	.....	..	gravel	200 5	.62	250 00	126
...	...	.....	1	concrete	.....	.....	.....	..	320	14	.....	....	1.0	263 09	127
...	...	.....	3	wood	.....	.....	.....	..	.....	..	.....	....	1.0	234 45	128
...	...	.....	...	.....	.....	.....	.....	..	.....	..	.....	....	.....	175 00	129
...	...	.....	4	wood	.....	.....	480	10	400	24	gravel	640 12	4.0	995 82	130
...	...	.....	...	.....	.....	.....	.....	..	.....	..	gravel	64 7	.19	100 00	131
...	...	.....	...	.....	.....	.....	.....	..	.....	..	gravel	74 7	.22	100 00	132
...	...	.....	1	cedar	stone	20	.....	..	.....	..	gravel	50 7	.15	98 75	133
...	...	.....	...	.....	.....	.....	.....	..	240	10	.....	....	.84	100 50	134
...	...	.....	2	wood	.....	.....	.....	..	.....	..	.....	....	1.0	117 50	135
...	...	.....	2	wood	.....	.....	.....	..	160	12	.....	....	1.60	198 58	136
1	16	woodR	3	wood	.....	.....	160	22	480	22	gravel	480 22	1.50	199 82	137
...	...	.....	...	.....	.....	.....	20	10	.....	..	gravel	52 7	.18	99 95	138
...	...	.....	2	cedar	.....	.....	.....	..	.....	..	.....	....	3.50	669 25	139
...	...	.....	6	wood	earth	*200	20	16	200	16	gravel	160 7	.81	497 99	140
...	...	.....	1	cedar	earth	283	112	4	.....	..	.....	....	1.0	278 15	141
...	...	.....	1	wood	earth	*700	800	16	960	20	gravel	800 5	3.00	999 90	142
...	...	.....	1	wood	earth	1,300	.....	..	42	24	gravel	42 5	.13	501 70	143
...	...	.....	...	.....	.....	.....	320	7	160	24	gravel	160 24	1.0	596 75	144
...	...	.....	7	wood	earth	210	80	24	320	18	gravel	80 7	7.0	749 90	145
...	...	.....	...	.....	earth	125	.....	..	.....	..	gravel	70 5	.21	350 00	146
...	...	.....	...	.....	earth	110	.....	..	.....	..	gravel	140 5	.75	300 00	147
...	...	.....	...	.....	.....	.....	.....	..	.....	..	.....	....	.31	305 95	148
...	...	.....	...	.....	.....	.....	.....	..	.....	..	gravel	30 5	.09	300 00	149
...	...	.....	1	wood	earth	*180	.....	..	160	20	gravel	140 5	.50	354 55	150
...	...	.....	...	.....	earth	50	.....	..	.....	..	gravel	160 5	.50	200 00	151
...	...	.....	...	.....	.....	.....	.....	..	20	20	gravel	170 7	.53	200 00	152
...	...	.....	...	.....	.....	.....	.....	..	.....	..	.....	....	.54	196 20	153

SCHEDULE SHOWING AMOUNT OF ROAD CONSTRUCTION UNDER THE COLON

NUMBER	NAME AND LOCATION OF WORK	NEW ROAD							DITCHED
		Cleared and Stumped		Graded and Shaped		SURFACED			
		Length, rods	Width, feet	Length, rods	Width, feet	Material	Length, rods	Width, feet	Length, rods
	NORTH DIVISION.—*Continued.*								
154	Sandfield, lots 15-19, con. 7	.....	....	.....	....	.....	.....	....	.....
155	Sandfield, lots 13-14, cons. 3-4	.....	....	168	12	gravel	84	7	.....
156	Sandfield, lots 9-10, con. 2	.....	....	.....	....	.....	.....	....	.....
157	Sandfield, lots 21-22	.....	....	.....	....	.....	.....	....	.....
158	Sandford, lots 2-3, con. 2-3	480	50	320	22	gravel	320	22	3
159	Scoble Tp. East	.....	....	.....	....	.....	.....	....	.....
160	Scoble Tp. West	.....	....	.....	....	.....	.....	....	.....
161	Shakespeare, lots 6-9, con. 1	.....	....	.....	....	.....	.....	....	.....
162	Sheguiandah, cons. 10-12	.....	....	.....	....	.....	.....	....	.....
163	Sheguiandah, lots 2-4, con. 3	.....	....	.....	....	.....	.....	....	.....
164	Stirling, lots 2-4	.....	....	.....	....	.....	.....	....	180
165	Strange, lots 3-4, con. 3	.....	....	.....	....	.....	.....	....	.....
166	Striker, lot 11, cons. 2-3	.....	....	.....	....	.....	.....	....	80
167	St. Joseph, F. and G. line, lot 13	.....	....	.....	....	.....	.....	....	.....
168	St. Joseph, C. line	.....	....	.....	....	.....	.....	....	.....
169	Tarbutt, cons. 2-3, lots 4-5	96	30	.....	....	.....	.....	....	72
170	Tarbutt, lots 9-11	.....	....	.....	....	.....	.....	....	.....
171	Tarbutt Additional Road	.....	....	.....	....	.....	.....	....	8
172	Tehkummah, lots 27-30, con. B.	.....	....	.....	....	.....	.....	....	.....
173	Tehkummah, lots 12-16, con. 6	.....	....	.....	....	.....	.....	....	.....
174	Tehkummah, lots 10-11, cons. 7-10	.....	....	.....	....	.....	.....	....	.....
175	Tehkummah, lots 17-27	.....	....	.....	....	.....	.....	....	.....
176	Tehkummah, 6th con. lots 17-18	.....	....	.....	....	.....	.....	....	.....
177	Temple, lots 8-9	160	22	160	22	gravel	160	22	210
178	Thessalon, sec. 27	240	20	240	18	.....	.....	....	.....
179	Thompson, sec. 16-17	.....	....	.....	....	.....	.....	....	.....
180	Van Horne, lot 8-11, cons. 3-6	.....	....	.....	....	.....	.....	....	960
181	Vankoughnet, Goulais Bay Road	.....	....	.....	....	.....	.....	....	20
182	Vankoughnet, Goulais Bay (E), sec.	.....	....	.....	....	.....	.....	....	.....
183	Victoria, secs. 23-26	200	40	320	18	gravel	70	5	40
184	Wainwright, lots 4-5, con. 1	.....	....	.....	....	.....	.....	....	480
185	Ware & Gorham, cons. 2-6	.....	....	.....	....	.....	.....	....	160
186	Ware, lot 11, con. 3	.....	....	.....	....	.....	.....	....	.....
187	Waters, Divs. 1-5	240	45	320	8	.....	.....	....	240
188	Wells, Main Road	.....	....	.....	....	.....	.....	....	.....
189	Wells, con. 6, lot 8	.....	....	.....	....	.....	.....	....	.....
196	Melgund Tp. Roads (accountable)	.....	....	.....	....	.....	.....	....	.....
191	Ware Tp. Laurie sec. (accountable)	.....	....	.....	....	.....	.....	....	.....
	North Division Total	7,702	....	4,327	....	.....	1,383	....	11,799

IZATION ROADS BRANCH, DEPARTMENT OF PUBLIC WORKS, ONTARIO, 1918.

BRIDGES			CULVERTS		CUT* AND FILL		OLD ROAD									
							Side-Brushed		Graded and Shaped		SURFACED					
Number	Span	Material	Number	Material	Material	Cubic yards	Length, rods	Width, feet	Length, rods	Width, feet	Material	Length, rods	Width, feet	MILEAGE	EXPENDITURE	NUMBER
															$ o.	
...	...	.....	...	.....	.....	.....	.....	..	40	12	gravel	118	7	.37	150 00	154
...	...	.....	...	.....	.....	.....	.....	..	.....	..	.....	.....	..	.52	150 00	155
...	...	.....	...	.....	.....	.....	120	20	.....	..	gravel	44	7	.37	100 00	156
...	...	.....	...	.....	.....	.....	.....	..	100	16	gravel	54	6	.31	100 00	157
...	...	.....	2	wood	.....	.....	.....	..	.....	..	.....	.....	..	.50	180 87	158
...	...	.....	5	wood	.....	.....	10	24	240	18	gravel	240	18	.75	374 40	159
...	...	.....	5	wood	earth	*50	.....	..	970	18	gravel	976	18	3.06	380 62	160
...	...	.....	...	.....	earth	60	.....	..	800	20	gravel	60	7	2.75	393 47	161
...	...	.....	...	.....	.....	.....	.....	..	150	12	gravel	86	7	.46	148 87	162
...	...	.....	...	.....	.....	.....	.....	..	.....	..	gravel	167	7	.52	301 62	163
...	...	.....	...	.....	.....	.....	.....	..	320	18	.....	.....	..	1.0	501 00	164
1	10	woodR	...	.....	earth	305	.....	..	160	20	.....	.....	..	.50	300 00	165
...	...	.....	...	.....	.....	.....	80	25	80	18	gravel	120	5	.75	417 24	166
...	...	.....	...	.....	earth	*90	.....	..	.....	..	gravel	120	5	.43	197 31	167
...	...	.....	...	.....	.....	.....	.....	..	160	20	gravel	40	5	.50	200 00	168
...	...	.....	2	wood	earth	20	.....	..	.....	..	gravel	160	5	.79	352 00	169
...	...	.....	...	.....	.....	.....	.....	..	448	22	gravel	296	5	1.39	350 00	170
1	10	wood	4	wood	earth	49	160	20	267	18	.....	.....	..	.81	279 69	171
...	...	.....	...	.....	.....	.....	.....	..	300	12	gravel	412	6	1.28	300 00	172
...	...	.....	2	wood	.....	.....	.....	..	68	24	gravel	82	7	.25	100 62	173
...	...	.....	3	wood	.....	.....	.....	..	80	18	gravel	160	7	.50	200 00	174
...	...	.....	2	cedar	earth	80	.....	..	80	24	gravel	250	7	.78	300 00	175
...	...	.....	...	.....	stone	30	.....	..	44	18	gravel	44	8	.13	100 00	176
...	...	.....	2	wood	.....	.....	.....	..	.....	..	.....	.....	..	.50	149 65	177
...	...	.....	...	.....	earth	200	.....	..	80	18	.....	.....	..	1.0	500 00	178
...	...	.....	...	.....	.....	.....	.....	..	320	20	gravel	320	5	1.25	703 28	179
...	...	.....	...	.....	.....	.....	320	50	1,920	20	gravel	640	18	6.0	230 00	180
...	...	.....	...	.....	earth	130	.....	..	284	12	gravel	176	6	1.50	500 00	181
...	...	.....	3	wood	earth	170	300	4	328	12	gravel	150	6	1.25	499 63	182
...	...	.....	4	wood	.....	.....	.....	..	.....	..	.....	.....	..	1.0	600 00	183
...	...	.....	2	wood	.....	.....	.....	..	400	22	gravel	800	10	1.25	247 00	184
...	...	.....	5	wood	.....	.....	.....	..	320	24	gravel	320	24	2.0	1,000 00	185
...	...	.....	8	wood	.....	.....	.....	..	960	18	gravel	960	18	3.0	900 00	186
...	...	.....	...	.....	.....	.....	.....	..	930	12	.....	.....	..	4.75	497 98	187
...	...	.....	...	.....	.....	.....	200	16	640	18	gravel	100	5	2.50	499 75	188
...	...	.....	...	.....	earth	110	.....	..	200	20	gravel	75	5	.75	350 00	189
...	...	.....	...	.....	.....	.....	.....	..	.....	..	.....	.....	..	.....	175 00	190
...	...	.....	...	.....	.....	.....	.....	..	.....	..	.....	.....	..	.....	450 00	191
18	...	.....	245	.....	.....	14,932	8,890	..	32,059	..	.....	23,497	..	194.95	53,498 09	

SCHEDULE SHOWING THE AMOUNT OF WORK OF ROAD CONSTRUCTION

Number	Township	Cleared and Stumped		Graded		Surfaced		
		Length, rods	Width, feet	Length, rods	Width, feet	Material	Length, rods	Width, feet
	North Division.							
1	Alberton, By-law No. "G"	.....	....	208	20	gravel	736	3
2	Assiginack, By-law No. 399	110	10	120	20	gravel	944	7
3	Atwood, By-law No. 99	647	66	646	24	gravel	40	5
4	Balfour, By-law No. 56	.....	....	1,440	12	.....	.....	....
5	Billings, By-law No. 240	140	8	3,015	24	gravel	452	7
6	Blue, By-law No. 37	341	66	201	28	gravel	15	5
7	Burpee, By-law No. 81	80	10	52	24	gravel	244	7
8	Chapple, By-law No. 231	1,014	40	340	20	gravel	2,316	7
9	Drury, Denison and Graham, By-law No. 170	.....	....	10,240	10	.....	.....	....
10	Dilke, By-law No. 82	120	40	85	30	gravel	331	5
11	Emo, By-law No. 221	650	20	720	30	gravel	1,839	7
12	Gordon, By-law No. 152	84	20	380	24	gravel	1,057	7
13	Hanmer, By-law No. 87	.....	....	2,940	16	.....	.....	....
14	Hilton, By-law No. 394	.....	....	.....	....	gravel	472	5
15	Howland, By-law No. 138	.....	....	378	24	gravel	385	7
16	Jaffray and Mellick, By-law No. 91	75	40	1,280	20	gravel	1,491	7
17	Jocelyn, By-law No. 290	230	16	173	24	gravel	509	7
18	Korah, By-law No. 164	560	16	2,460	24	gravel	3,720	7
19	Laird, By-law No. 122	.....	....	480	22	gravel	325	5
20	Lavalle, By-law No. 180	246	20	2,423	18	gravel	1,565	7
21	McDonald, Meredith and Aberdeen Additional, By-law No. 133	.....	....	140	20	gravel	440	5
22	McIrvine, By-law No. 218	60	66	100	40	gravel	440	3
23	Morley and Pattullo, By-law No. 168	130	40	234	24	gravel	1,610	5
24	Neebing, By-law No. 366	640	40	960	24	gravel	720	7
25	O'Conner, By-law No. 142	220	40	75	24	earth	75	18
26	Oliver, By-law No. 176	1,200	30	1,160	18	earth	960	18
27	Paipoonge, By-law No. 155	.....	....	1,840	16	gravel	2,016	7
28	Plummer Additional, By-law No. 158	.....	....	550	20	gravel	816	7
29	Prince, By-law No. 59	.....	....	.....	....	gravel	140	6
30	Rayside, By-law No. 185	.....	....	900	12	.....	.....	....
31	Sanfield, By-law No. 231	.....	....	.....	....	gravel	180	7
32	Shuniah, By-law No. 443	1,540	20	6,980	16	gravel	3,660	7
33	St. Joseph, By-law No. 427	370	20	470	18	gravel	225	7
34	Thompson, By-law No. 122	.....	....	.....	....	gravel	260	6
35	Worthington, By-law No. 85	512	20	447	28	gravel	60	3
	Total	8,969	....	41,437	....	.....	28,043	....

COLONIZATION ROADS BRANCH UNDER MUNICIPAL BY-LAWS, 1918

DITCHED	CUT* OR FILL		BRIDGES			CULVERTS		NEW ROAD MILEAGE	OLD ROAD MILEAGE	GOVERNMENT EXPENDITURE	NUMBER
Length, rods	Material	Amount in cu. yds.	Number	Span, feet	Material	Number	Material				
										$ c.	
60								.65	2.30	999 95	1
	clay	40				9	wood		3.00	650 00	2
						1	plank	1.00	1.48	500 00	3
1,280									4.50	750 00	4
24	earth	230				6	wood		11.91	400 00	5
56						1	wood	1.06	.46	475 00	6
	clay	110				5	rock		.76	200 00	7
199	clay	455				9	wood	4.00	7.09	3,500 00	8
38						8	concrete		32 00	1,300 00	9
						2	wood	.26	1.03	500 00	10
158	earth	320				8	wood	.44	7.07	2,400 00	11
	stone	100				1	metal		3.42	599 97	12
						3	wood		9.50	850 00	13
									1.47	300 00	14
18	stone	120				4	metal	.17	1.50	600 00	15
388	earth	360				39	wood	.23	28.00	984 01	16
80									2.71	600 00	17
134	earth	618				13	wood		12.65	3,446 07	18
80	earth	444							2.78	399 93	19
64	earth	825				7	wood	.42	11.50	2,000 00	20
269	earth	40							2.48	600 00	21
								.31	1.37	950 00	22
513	earth	525				9	cedar	.28	6.00	1,457 25	23
						7	cedar	1.98	1.52	1,202 66	24
						1	pine	.68	.07	270 62	25
830	earth	100				4	wood		7.00	882 88	26
	earth	700				6	wood		13.50	1,750 00	27
130	earth	40				4	wood		3.50	700 00	28
	earth	120	1	14	wood.	4	wood		5.50	300 00	29
									2.81	300 00	30
	gravel	30				1	cedar		.56	250 00	31
2,520			3	18	wood.	20	wood	1.56	57.00	3,500 00	32
120	earth	120				3	wood		2.15	400 00	33
									.81	199 25	34
	clay	10				2	cedar		1.58	500 00	35
6,961		5,307	4			177		13.04	250.98	34,717 59	

SCHEDULE SHOWING THE AMOUNT OF ROAD CONSTRUCTION UNDER THE COLON

Number	Name and Location of Work	NEW ROAD							DITCHED
		Cleared and Stumped		Graded and Shaped		SURFACED			
		Length, rods	Width, feet	Length, rods	Width, feet	Material	Length, rods	Width, feet	Length, rods
1	Amabel, lot 20, con. 4	50	24	.....	....	earth ..	15	16	.....
2	Bethune, con. 12, lot 23	.....	....	.....	....	.....	.....	....	160
3	Bethune, lots 17-19, con. 8	.....	....	.....	....	.....	.....	....	240
4	Cardwell, lots 1-2, con. 4	.....	....	.....	....	.....	.....	....	.....
5	Carling, new road near Nobel	240	20	560	15	.....	.....	....	560
6	Chapman, 10th sideroad, con. 12	160	30	80	14	.....	.....	....	.....
7	Chapman, lot 16, con. 8	.....	....	.....	....	.....	.....	....	.....
8	Chapman, lots 16-17, cons. 1-2	.....	....	.....	....	.....	.....	....	90
9	Draper, lots 1-5, cons. 6-10	.....	....	.....	....	.....	.....	....	.....
10	Franklin, lots 23-25, cons. 1-2	.....	....	.....	....	.....	.....	....	.....
11	Himsworth, lot 21, con. 23	160	16	16	16	earth ..	160	16	.....
12	Himsworth, lots 24-25, con. 26	.....	....	.....	....	.....	.....	....	.....
13	Himsworth, S., cons, 2-3, lots 12-17	.....	....	.....	....	.....	.....	....	.....
14	Humphrey, Parry Sound Road, con. A.	.....	....	.....	....	.....	.....	....	300
15	Humphrey, Peninsula Road	.....	....	.....	....	.....	.....	....	160
16	Machar, 30th sideline, cons. 3-4	.....	....	.....	....	.....	.....	....	80
17	Machar, 20th sideroad, lot 21	.....	....	.....	....	.....	.....	....	.....
18	McKellar, lots 21-23, cons. 1-2	.....	....	.....	....	.....	.....	....	400
19	McKellar, lot 20-35, con. 11	.....	....	.....	....	.....	.....	....	400
20	McKellar, Great North Road	.....	....	.....	....	.....	.....	....	480
21	McMurrich, Rainy Lake Road	160	40	37	14	.....	.....	....	.....
22	McMurrich, Sprucedale to McMurrich	.....	....	.....	....	.....	.....	....	.....
23	Medonte, sideroad 10-11, con. 12	.....	....	.....	....	.....	.....	....	.....
24	Medonte, Coldwater Road	.....	....	.....	....	.....	.....	....	.....
25	Medonte, sideroad 20-21, con. 12	.....	....	.....	....	.....	.....	....	.....
26	Medora and Wood, Lake Joseph Road	.....	....	.....	....	.....	.....	....	.....
27	Mills, from Wilson's Boundary	16	20	.....	....	.....	.....	....	.....
28	Mills, Hardy and Mills Road	.....	....	.....	....	.....	.....	....	160
29	Monck, lot 10, con. 3	.....	....	.....	....	.....	.....	....	.....
30	Monteith, lots 16-18, con. 3	.....	....	.....	....	.....	.....	....	240
31	Morrison, lots 25-26, cons. 3-8	.....	....	.....	....	.....	.....	....	.....
32	Nipissing, Powassan Road	.....	....	.....	....	.....	.....	....	.....
33	North Orillia, Stanton Road	.....	....	.....	....	.....	.....	....	.....
34	Oro, North Corner Road	.....	....	.....	....	.....	.....	....	.....
35	Patterson, lots 9-10, cons. 2-3	80	30	80	16	.....	.....	....	.....
36	Patterson & Pringle, con. 14, lots 33-35	.....	....	.....	....	.....	.....	....	.....
37	Perry, lot 10, con. 10-12	.....	....	.....	....	.....	.....	....	30
38	Pringle, Great North Road	.....	....	.....	....	.....	.....	....	.....
39	Pringle, 5th sideroad, con. 8	260	14	260	14	.....	.....	....	.....
40	Ridout, lots 21-27, cons. 10-12	.....	....	.....	....	.....	.....	....	.....
41	Ryerson, Rainy Lake Road	.....	....	.....	....	.....	.....	....	.....
42	Ryerson, cons. 12-13, lots 1-11	.....	....	.....	....	.....	.....	....	240
43	Ryde, Draper & Ryde, townline, lot 25	.....	....	.....	....	.....	.....	....	175
44	Spence and Croft, 13th con.	.....	....	.....	....	.....	.....	....	.....
45	St. Edmunds, Bury Road	.....	....	.....	....	.....	.....	....	.....
46	Stisted and Cardwell deviation	.....	....	320	16	gravel ..	506	7	35
47	Strong, 20th sideroad, cons. 6-8	.....	....	.....	....	.....	.....	....	.....
48	Strong, 10th sideroad, cons. 6-8	160	16	160	16	gravel ..	160	16	160
49	Strong, 5th sideroad, con. 5-6	.....	....	.....	....	.....	.....	....	400
50	Tay, Port Severn Road	.....	....	.....	....	.....	.....	....	.....
51	Tay, Port McNicoll Road	.....	....	.....	....	.....	.....	....	.....
52	Tay, Victoria Harbor Road	.....	....	.....	....	.....	.....	....	.....
53	Tay, Matchedash townline	70	48	100	22	.....	.....	....	.....
54	Tiny, Sawlog Bay Road	52	33	.....	....	gravel ..	110	10	.....
55	Watt, Skeleton Hill deviation	.....	....	.....	....	.....	.....	....	.....
56	Wood, lots 24-35, cons. 11-12	.....	....	.....	....	.....	.....	....	.....
57	Wood, Bala Road, Gibson Reserve	.....	....	.....	....	.....	.....	....	.....
58	Wood, Musquosh Road, con. 10	.....	....	.....	....	.....	.....	....	.....
		1,552	....	1,613	....	.....	951	....	4,310

IZATION ROADS BRANCH, DEPARTMENT OF PUBLIC WORKS, ONTARIO, IN 1918

BRIDGES			CULVERTS		CUT* AND FILL		OLD ROAD						MILEAGE	EXPENDITURE	NUMBER
							Side brushed		Graded and Shaped		SURFACED				
Number	Span	Material	Number	Material	Material	Cubic Yards	Length, rods	Width, feet	Length, rods	Width, feet	Material	Length, rods	Width, feet			
..	..	.....	.....	.....	.....	.....	.....	..	.....	..	.....	.....	..	.15	$350 00	1
..	..	.....	5	wood ..	.....	.....	.....	..	160	14	gravel	160	14	.50	346 75	2
..	..	.....	4	wood ..	.....	.....	.....	..	240	14	gravel	240	14	.75	349 28	3
..	..	.....	3	wood ..	.....	.....	.....	..	160	18	gravel	160	6	.50	250 00	4
..	..	.....	5	cedar...	.....	.....	.....	..	.....	..	.....	.....	..	.75	450 00	5
..	..	.....	2	wood ..	.....	.....	.....	..	.....	..	.....	.....	..	.50	300 00	6
..	..	.....	.....	.....	.....	.....	.....	..	18	18	gravel	18	18	.05	209 05	7
..	..	.....	3	cedar...	.....	.....	.....	..	40	16	gravel	40	16	.50	300 00	8
..	..	.....	9	stone...	.....	.....	.....	..	800	18	gravel	800	7	2.75	400 97	9
..	..	.....	3	wood ..	.....	.....	40	45	600	16	gravel	500	7	2.00	400 00	10
..	..	.....	3	wood ..	.....	.....	.....	..	.....	..	.....	.....	..	.50	300 50	11
1	16	cedar	1	wood ..	.....	.....	.....	..	160	16	gravel	160	16	.50	200 60	12
1	14	cedar	4	wood ..	.....	.....	.....	..	240	14	gravel	240	14	.75	300 74	13
..	..	.....	4	cedar...	.....	.....	.....	..	300	16	gravel	300	4	.93	406 07	14
..	..	.....	.....	.....	.....	.....	.....	..	160	16	gravel	160	16	.50	316 75	15
..	..	.....	3	cedar...	.....	.....	160	30	80	14	gravel	80	14	.50	300 00	16
..	..	.....	3	cedar...	.....	.....	.....	..	240	16	gravel	240	16	.75	301 45	17
1	14	cedar	7	cedar,..	.....	.....	.....	..	400	14	gravel	400	14	1.25	350 78	18
..	..	.....	9	wood ..	.....	.....	.....	..	400	14	.....	.....	..	.25	299 55	19
..	..	.....	5	cedar...	.....	.....	.....	..	480	16	gravel	480	16	1.50	401 00	20
..	..	.....	.....	.....	.....	.....	.....	..	.....	..	.....	.....	..	.50	200 00	21
..	..	.....	.....	.....	.....	.....	.....	..	320	8	gravel	320	8	1 00	404 30	22
1	20	cedar	.....	.....	.....	.....	.....	..	.....	..	.....	.....	..	.....	200 00	23
..	..	.....	.....	.....	.....	.....	.....	..	175	22	gravel	150	7	.54	204 81	24
..	..	.....	1	wood ..	.....	.....	.....	..	160	18	gravel	55	7	.50	151 50	25
..	..	.....	.....	.....	.....	.....	.....	..	200	18	gravel	200	7	1.50	300 00	26
..	..	.....	2	wood ..	.....	.....	.....	..	.....	..	.....	.....	..	.50	199 05	27
..	..	.....	3	cedar...	.....	.....	.....	..	160	16	gravel	160	16	.50	301 47	28
..	..	.....	1	concrete	earth ..	1,860	.....	..	40	20	gravel	40	8	.12	400 00	29
..	..	.....	4	cedar...	.....	.....	.....	..	240	16	gravel	240	16	.75	255 65	30
..	..	.....	.....	.....	.....	.....	.....	..	400	18	gravel	200	7	1.25	300 00	31
..	..	.....	1	wood ..	.....	.....	.....	..	160	16	gravel	160	16	.50	249 98	32
..	..	.....	.....	.....	.....	.....	20	10	200	24	gravel	85	7	.62	198 50	33
..	..	.....	.....	.....	earth...	157	400	20	20	24	gravel	180	7	2.00	250 00	34
..	..	.....	2	wood ..	earth ..	300	.....	..	.....	..	.....	.....	..	.50	349 34	35
..	..	.....	2	cedar...	.....	.....	.....	..	170	16	gravel	170	16	.53	200 52	36
..	..	.....	1	cement .	earth ..	30	.....	..	30	16	gravel	30	16	2.0	400 00	37
..	..	.....	7	cedar...	.....	.....	.....	..	640	16	gravel	240	16	2.0	511 98	38
..	..	.....	4	cedar...	.....	.....	.....	..	.....	..	.....	.....	..	.87	399 96	39
..	..	.....	8	wood ..	.....	.....	400	40	600	18	gravel	600	8	2.50	449 87	40
..	..	.....	3	wood ..	.....	.....	.....	..	480	16	gravel	480	16	1.50	299 82	41
..	..	.....	4	cedar...	.....	.....	.....	..	240	14	gravel	240	14	.75	299 94	42
..	..	.....	9	wood ..	.....	.....	.....	..	200	20	gravel	200	8	1.25	400 64	43
..	..	.....	3	wood ..	.....	.....	.....	..	250	16	gravel	250	16	.78	308 88	44
..	..	.....	1	wood ..	stone...	16	.....	..	.....	..	gravel	300	7	1.00	401 59	45
..	..	.....	9	wood ..	.....	.....	.....	..	.....	..	.....	.....	..	1.00	491 48	46
..	..	.....	3	cedar...	.....	.....	.....	..	240	14	gravel	240	14	.75	254 70	47
..	..	.....	4	cedar...	.....	.....	.....	..	.....	..	.....	.....	..	.50	300 75	48
..	..	.....	2	cedar...	.....	.....	.....	..	400	16	gravel	400	16	1.25	252 78	49
..	..	.....	2	stone...	.....	.....	640	16	.....	..	gravel	210	7	5.00	500 00	50
..	..	.....	2	concrete	.....	.....	200	24	250	20	.....	.....	..	.78	212 55	51
..	..	.....	.....	.....	.....	.....	.....	..	180	24	gravel	160	8	.56	202 35	52
..	..	.....	....	....	stone...	100	.....	..	.....	..	.....	.....	..	.75	99 98	53
..	..	.....	3	wood ..	.....	.....	.....	..	.....	..	.....	.....	..	.50	400 75	54
..	..	.....	.....	.....	blasting and fill	165	.....	..	.....	..	.....	.....	..	.09	600 00	55
..	..	.....	4	wood ..	earth...	150	250	40	400	18	gravel	150	18	2.0	450 00	56
..	..	.....	3	wood ..	.....	.....	100	30	200	16	.....	.....	..	3.0	285 13	57
..	..	.....	4	wood ..	.....	.....	.....	..	300	18	gravel	300	5	2.0	500 00	58
4	..	.....	165	.....	.....	2,778	2,210	..	11,133	..	.....	9,738	..	58.02	18,721 16	..

SCHEDULE SHOWING THE AMOUNT OF WORK OF ROAD CONSTRUCTION

NUMBER	TOWNSHIP	CUT AND CLEARED		GRADED		SURFACED		
		Length, rods	Width, feet	Length, rods	Width, feet	Material	Length rods	Width, feet
	WEST DIVISION							
1	Albermarle, By-law No. 564	50	15	370	18	gravel	1,203	7
2	Chapman, By-law No. 5	144	10	1,792	14	gravel	275	6
3	Draper, By-law No. 368	300	45	7,420	16	gravel	200	5
4	Eastnor, By-law No. 13	260	10	545	18	gravel	325	7
5	Himsworth, By-law No. 51B	.....	....	250	22	gravel	150	4
6	Humphrey, By-law No. 340	.....	....	22	18	gravel	22	7
7	Joly, By-law No. 165	18	18	30	18	gravel	120	18
8	Keppel, By-law No. 6	.....	....	3,110	15	Br. stone	1,275	7
9	Lindsay, By-law No. 268	.....	....	300	18	gravel	800	7
10	Machar, By-law No. 540	123	40	16	40	gravel	12	12
11	Macaulay, By-law No. 46	.....	....	2,284	18	gravel	720	5
12	McLean, By-law No. 417	.....	....	400	16	gravel	225	6
13	Monck, By-law No. 450	.....	....	5,200	18	gravel	500	7
14	Muskoka, By-law No. 284	1,360	40	4,920	18	gravel	1,280	5
15	Orillia, By-law No. 957	320	16	1,465	18	gravel	718	7
16	St. Edmund's By-law No. 214	640	15	70	18	gravel	300	7
17	Sarawak, By-law No. 8	.....	....	955	16	Br. stone	651	7
18	Tay, By-law No. 667	.....	....	415	22	gravel	678	7
19	Tiny, By-law No. 581	.....	....	930	22	gravel	395	7
20	Vespra, By-law No. 607	.....	....	360	20	gravel	490	7
21	Watt, By-law No. 510	.....	....	40	20	earth	100	16
		3,215	....	30,894	....	.....	10,439	....

COLONIZATION ROADS BRANCH UNDER MUNICIPAL BY-LAWS, 1918

DITCHED	CUT* OR FILL		BRIDGES			CULVERTS		NEW ROAD MILEAGE	OLD ROAD MILEAGE	GOVERNMENT EXPENDITURE	NUMBER
Length, rods	Material	Amount in Cubic yards	Number	Span, feet	Material	Number	Material				
										$ c.	
.....	rock*	22	.....	.....	.....	.....	.....	.....	3.80	600 00	1
16	.....	.....	1	16	wood	10	cedar	.....	5.84	500 00	2
.....	boulder's*	20	.....	.....	.....	28	wood	.....	26.50	450 00	3
.....	stone	25	1	30	r.pla'k	.....	.....	.....	2.46	500 00	4
.....	.....	.....	.....	.....	.....	1	wood	.....	.78	75 00	5
.....	rock*	35	.....	.....	.....	.....	.....	.....	.07	100 00	6
120	earth	700	.....	.....	.....	1	cedar	.05	.37	50 00	7
.....	stone	213	.....	.....	.....	2	cement	.....	10.78	798 21	8
.....	.....	.....	.....	.....	.....	1	wood	.....	2.54	750 00	9
.....	.....	.....	.....	.....	.....	.....	.....	.....	.38	200 00	10
.....	earth	40	.....	.....	.....	13	wood	.....	19.00	400 00	11
.....	.....	.....	.....	.....	.....	.....	.....	.....	1.75	159 00	12
.....	earth*	100	.....	.....	.....	25	wood	.....	30.31	650 00	13
.....	.....	.....	.....	.....	.....	32	wood	.....	20.00	500 00	14
.....	.....	.....	.....	.....	.....	3	cement	.....	6.65	1,000 00	15
.....	stone	40	.....	.....	.....	.....	.....	.....	2.00	300 00	16
.....	stone	72	.....	.....	.....	.....	.....	.....	3.04	600 00	17
40	stone	150	.....	.....	.....	5	cement	.....	2.75	1,000 00	18
125	.....	.....	.....	.....	.....	1	cement	.....	4 00	400 00	19
22	earth	350	2	15	cedar	.....	.....	.....	2.06	500 00	20
.....	earth	400	.....	.....	.....	.....	.....	.....	.37	125 00	21
323	.....	2,167	4	.....	.....	122	.....	.05	145.45	9,648 21	

SCHEDULE SHOWING AMOUNT OF ROAD CONSTRUCTION UNDER THE
ONTARIO,

NUMBER	NAME AND LOCATION OF WORK	NEW ROAD							DITCHED
		Cleared and Stumped		Graded and Shaped		SURFACED			
		Length, rods	Width, feet	Length, rods	Width, feet	Material	Length, rods	Width, feet	Length, rods
1	Addington Road, Denbigh end	.....	....	.....	....	.....	....	....	800
2	Addington Road, Kaladar end	.....	....	.....	....	.....	....	....	320
3	Admaston Tp., Enright Settlement	.....	....	.....	....	.....	....	....	.....
4	Admaston, Shamrock Road	.....	....	.....	....	.....	....	....	.....
5	Admaston, Opeongo to Bruce Hill	.....	....	.....	....	.....	....	....	.....
6	Admaston, Opeongo and Mountain Rd.	.....	....	.....	....	.....	....	....	.....
7	Admaston, Douglas Station Road	.....	....	.....	....	.....	....	....	.....
8	Admaston, Renfrew and Shamrock Rd.	.....	....	.....	....	.....	....	....	.....
9	Alice, 10th con.	.....	....	.....	....	.....	....	....	.....
10	Alice, Pembroke and Eganville Rd	.....	....	.....	....	.....	....	....	.....
11	Alice, sideroad, cons. 10-12	.....	....	.....	....	.....	....	....	.....
12	Alice and Fraser, 16th con.	.....	....	.....	....	.....	....	....	.....
13	Alice, "B" line road	.....	....	.....	....	.....	....	....	.....
14	Alice, con. 14	.....	....	.....	....	.....	....	....	.....
15	Airy, Township Roads	.....	....	100	12	gravel	24	8	.....
16	Anson and Hinden, River Road	.....	....	.....	....	.....	....	....	1,280
17	Badgerow, Verner-Desaulniers	.....	....	.....	....	.....	....	....	.....
18	Bagot and Blythfield, con. 1, lot 15	.....	....	.....	....	.....	....	....	.....
19	Bagot and Blythfield, Fraser Road	.....	....	.....	....	.....	....	....	.....
20	Bagot, Ashdod and Calabogie Road	.....	....	.....	....	.....	....	....	.....
21	Bagot and Blythfield, 11th con.	.....	....	.....	....	.....	....	....	.....
22	Bagot and Blythfield, lot 16, con. 8	.....	....	.....	....	.....	....	....	.....
23	Bangor, lots 30-32, con. 1	.....	....	.....	....	.....	....		.....
24	Bangor, Bells Rapids Road	.....	....	.....	....	.....	....	....	.....
25	Barrie, Harlowe and Cloyne Road	.....	....	.....	....	.....	....	....	.....
26	Barrie and Kennebec, lot 21, con. 2	.....	....	.....	....	.....	....	....	.....
27	Bedford, Wolfe Lake Road	.....	....	.....	....	.....	....	....	.....
28	Bedford, lot 22, con. 8	.....	....	.....	....	.....	....	....	.....
29	Bedford, Canoe Lake Road	.....	....	.....	....	.....	....	....	.....
30	Belmont, Oak Lake Road	.....	....	.....	....	.....	....	....	.....
31	Belmont, Campbellford Road	.....	....	.....	....	.....	....	....	.....
32	Bexley, lots 30-31, cons.	.....	....	.....	....	.....	....	....	.....
33	Bonfield Township Roads	439	30	39	15	gravel	100	6	.....
34	Boulter Township Roads	.....	....	.....	....	.....	....	....	20
35	Bromley, Cobden Road	.....	....	.....	....	.....	....	....	.....
36	Bromley, Church Road	.....	....	.....	....	.....	....	....	.....
37	Brougham, Maloney Mountain Road	.....	....	.....	....	.....	....	....	.....
38	Brougham, lots 23-24, con. 4	.....	....	.....	....	.....	....	....	.....
39	Brougham, Ferguson Lake Road	.....	....	.....	....	.....	....	....	.....
40	Brougham, Dacre and Mt. St. Patrick	.....	....	.....	....	.....	....	....	.....
41	Brudenell and Lyndoch, 16th con.	.....	....	.....	....	.....	....	....	.....
52	Brudenell and Lyndoch, Maley Road	.....	....	.....	....	.....	....	....	.....
43	Brudenell & Lyndoch, Fosters Hill	.....	....	.....	....	.....	....	....	.....
44	Brudenell and Lyndoch, lot 6, con. 13	.....	....	.....	....	.....	....	....	.....
45	Burleigh Township Roads	.....	....	.....	....	.....	....	....	.....
46	Calvin Township Roads	90	30	90	15	.....	....	....	.....
47	Cameron Township Roads	350	40	150	15	gravel	20	6	.....
48	Carden, Lake Shore Road	.....	....	.....	....	.....	....	....	.....
49	Carden, con. 8, lot 10	.....	....	.....	....	.....	....	....	.....
50	Carden, Victoria Road, lot 17	.....	....	.....	....	.....	....	....	25
51	Cardiff, lot 25, con. 17	.....	....	.....	....	.....	....	....	.....
52	Carlow Tp. Roads	.....	....	.....	....	.....	....	....	.....
53	Cavendish, White Lake Road	.....	....	.....	....	.....	....	....	.....
54	Cavendish, Gooderham and Buckhorn	.....	....	.....	....	.....	....	....	.....

COLONIZATION ROADS BRANCH, DEPARTMENT OF PUBLIC WORKS, IN 1918.

BRIDGES		CULVERTS		CUT* AND FILL		OLD ROAD									
						Side Brushed		Graded and Shaped		SURFACED					
Number	Span	Material	Number	Material	Material	Cubic yards	Length, rods	Width, feet	Length, rods	Width, feet	Material	Length, rods	Width, feet	MILEAGE	EXPENDITURE	NUMBER
															$ c.	
..	..	.....	8	cedar	rock	3,700	8	30	720	16	gravel	320	12	2.25	2,796 81	1
..	..	.....	1	concrete	earth	3,000	.....	..	1,040	14	gravel	690	5	3.25	2,203 19	2
..	..	.....	.....	.....	.....	.....	.....	..	.....	..	gravel	80	10	.25	150 00	3
..	..	.....	.....	.....	.....	.....	.....	..	320	24	gravel	320	10	1.00	300 00	4
..	..	.....	2	cedar	.....	.....	.....	..	.....	..	gravel	160	10	.50	151 00	5
..	..	.....	.....	.....	.....	.....	.....	..	80	24	gravel	80	10	.25	199 93	6
..	..	.....	.....	.....	.....	.....	.....	..	.....	..	gravel	120	10	.37	100 50	7
..	..	.....	.....	.....	.....	.....	.....	..	.....	..	gravel	480	10	1.50	501 62	8
..	..	.....	.....	.....	.....	.....	.....	..	160	24	gravel	200	10	.50	353 50	9
..	..	.....	.....	.....	.....	.....	.....	..	160	24	gravel	160	10	.50	350 00	10
..	..	.....	.....	.....	.....	.....	.....	..	80	30	gravel	80	10	.25	197 52	11
..	..	.....	.....	.....	.....	.....	.....	..	80	24	gravel	160	8	.50	200 50	12
..	..	.....	.....	.....	.....	.....	.....	..	80	24	gravel	80	12	.25	149 99	13
..	..	.....	.....	.....	.....	.....	.....	..	160	24	gravel	160	6	.50	243 75	14
7	16	wood	8	wood	.....	.....	.....	..	3,200	12	gravel	75	8	10.75	1,604 62	15
..	..	.....	.....	.....	.....	.....	.....	..	25	16	gravel	78	5	4.25	114 63	16
..	..	.....	1	wood	earth*	15	.....	..	.....	..	.....	.....	..	3.00	252 67	17
..	..	.....	1	cedar	.....	.....	320	30	.....	..	gravel	80	8	1.00	102 40	18
..	..	.....	.....	.....	.....	.....	.....	..	160	30	gravel	160	8	.50	100 00	19
..	..	.....	2	cedar	.....	.....	.....	..	120	24	gravel	120	8	.62	100 00	20
..	..	.....	3	cedar	.....	.....	.....	..	20	24	gravel	80	20	.25	102 50	21
..	..	.....	.....	.....	.....	.....	.....	..	80	24	gravel	80	10	.25	200 00	22
..	..	.....	7	cedar	.....	.....	40	20	80	15	gravel	100	7	.31	200 00	23
..	..	.....	2	cedar	.....	.....	20	20	80	14	.....	.....	..	.25	100 00	24
..	..	.....	.....	.....	earth*	15	.....	..	36	14	gravel	67	8	1.50	200 00	25
..	..	.....	.....	.....	stone*	20	.....	..	.....	..	gravel	165	8	.75	200 00	26
..	..	.....	.....	.....	.....	.....	.....	..	.....	..	gravel	197	14	.50	250 00	27
..	..	.....	2	cedar	.....	.....	.....	..	37	14	gravel	40	8	.25	100 00	28
..	..	.....	.....	.....	stone	41	.....	..	.....	..	gravel	7	16	.02	150 00	29
1	16	stone	.....	.....	.....	.....	.....	..	.....	..	gravel	34	16	.10	52 16	30
..	..	.....	.....	.....	.....	.....	.....	..	.....	..	gravel	72	5	.22	52 03	31
..	..	.....	.....	.....	.....	.....	.....	..	40	24	gravel	75	6	.80	152 25	32
2	16	wood	10	wood	.....	.....	.....	..	420	47	gravel	246	14	3.00	1,014 00	33
..	..	.....	3	wood	.....	.....	.....	..	365	14	gravel	60	6	1.25	295 50	34
..	..	.....	.....	.....	.....	.....	.....	..	160	24	gravel	160	8	.50	300 00	35
..	..	.....	.....	.....	.....	.....	.....	..	160	24	gravel	160	7	.50	201 13	36
..	..	.....	1	cedar	.....	.....	.....	..	80	24	gravel	80	10	.25	159 01	37
..	..	.....	.....	.....	.....	.....	.....	..	80	24	gravel	160	10	.50	159 25	38
..	..	.....	.....	.....	.....	.....	.....	..	80	24	gravel	80	10	.25	101 00	39
..	..	.....	2	cedar	.....	.....	.....	..	80	24	gravel	120	10	.37	101 00	40
..	..	.....	.....	.....	.....	.....	.....	..	80	24	gravel	80	8	.25	106 00	41
..	..	.....	.....	.....	.....	.....	.....	..	.....	..	gravel	160	10	.50	200 00	42
..	..	.....	.....	.....	.....	.....	.....	..	80	10	.....	.....	..	.25	103 50	43
..	..	.....	2	cedar	.....	.....	.....	..	80	24	gravel	160	10	.50	243 00	44
..	..	.....	.....	.....	.....	.....	.....	..	.....	..	stone	347	6	1.09	899 56	45
..	..	.....	8	wood	.....	.....	150	35	903	16	gravel	728	6	4.00	1,039 43	46
..	..	.....	4	wood	.....	.....	.....	..	380	15	gravel	30	6	2.75	591 25	47
..	..	.....	.....	.....	.....	.....	.....	..	.....	..	gravel	400	6	1.25	100 00	48
..	..	.....	.....	.....	.....	.....	.....	..	25	18	gravel	85	5	1.50	100 00	49
..	..	.....	2	wood	stone	60	.....	..	1,280	16	gravel	140	5	6.50	450 00	50
..	..	.....	1	wood	.....	.....	.....	..	240	18	gravel	40	6	1.59	148 75	51
..	..	.....	.....	.....	.....	.....	.....	..	160	14	.....	.....	..	.50	148 00	52
..	..	.....	.....	.....	.....	.....	.....	..	100	18	.....	.....	..	.31	101 00	53
1	33	crosslay	.....	.....	.....	.....	.....	..	100	16	.....	.....	..	.31	100 00	54

SCHEDULE SHOWING AMOUNT OF ROAD CONSTRUCTION UNDER THE ONTARIO,

NUMBER	NAME AND LOCATION OF WORK	NEW ROAD							DITCHED
		Cleared and Stumped		Graded and Shaped		SURFACED			
		Length, rods	Width, feet	Length, rods	Width, feet	Material	Length, rods	Width, feet	Length, rods
55	Chandos, Long Swamp Road								
56	Chandos, Wellington Road								
57	Chandos, Church Road								
58	Chandos, Post Road								
59	Chandos, Scott Road								
60	Chisholm Township Roads	460	40	325	12	gravel	45	6	
61	Clarendon, Pine Lake Road								
62	Clarendon, Plevna and Lavant Road								
63	Clarendon, north of Ardoch Road								
64	Clarendon, Oldman Mountain Road								
65	Clarendon and Miller, con. 1, lot 2								
66	Cosby and Mason, Noelville-Rutter								
67	Crerar, River Valley Road								
68	Dalton, Monck Road, lot 12, con. 3								
69	Dalton, Head River to Seabright								
70	Dalton, Sadowa Road, cons. 6-8								
71	Darling, Tetlock and Raycroft Road								
72	Darling, Raycroft and White Lake Rd								
73	Darling, 8th Line Road								
74	Denbigh, Denbigh and Palmer Rapids								
75	Douro Township Road								
76	Dummer, Asphodel and Dummer Rd								
77	Dungannon, lots 26-27, con. 15								
78	Dungannon, lots 1-2, con. 12								
79	Dungannon, Sayer Hill								
80	Elzevir Tp. Road								
81	Ennismore, Gannons Narrows Road								
82	Faraday, Bay Lake Road								
83	Faraday, Bancroft and Vankleek Rd								
84	Faraday, Herschel and Faraday T.L.								
85	Ferris Township Roads	480	30	120	16				
86	Field, lot 12, con. 4, contract								32
87	Galway, Reid Road								
88	Galway, Graney Line Road								
89	Glamorgan, lot 13, con. 9								
90	Grattan, McGrath Road								
91	Grattan, Breen Road								
92	Grattan, Scott's Bush Road								
93	Grattan, Dacre and Balaclava Road								
94	Grattan, Gorman Road								
95	Grattan, Opeongo Line Road								
96	Griffith and Matawchan, Dacre Road								
97	Hagarty, Killaloe and Wilno								
98	Hagarty, Killaloe and Tramore Road								
99	Hagarty, 16th con. road								
100	Hagarty, Killaloe and Eganville								
101	Hagarty, Killaloe and Brudenell								
102	Hagarty, Long Swamp, Tramore								
103	Harvey, Bobcaygeon Road								
104	Harvey, Gannons Narrows Road								
105	Harvey, Buckhorn Road								
106	Harvey, Deer Bay Road								
107	Head, Clara and Maria Tp. Road			300	16				
108	Herschel, Birds Creek Road								

COLONIZATION ROADS BRANCH, DEPARTMENT OF PUBLIC WORKS, IN 1918.—*Continued.*

BRIDGES			CULVERTS		CUT* AND FILL	OLD ROAD										
						Side Brushed		Graded and Shaped		SURFACED			MILEAGE	EXPENDITURE		NUMBER
Number	Span	Material	Number	Material	Material	Cubic yards	Length, rods	Width, feet	Length, rods	Width, feet	Material	Length, rods	Width, feet		$ c.	
..	..	.....	...	.....	.....	.....	.....	..	.....	..	gravel	90	5	.28	198 97	55
..	..	.....	...	.....	.....	.....	.....	..	320	16	.....	.....	..	1.00	100 00	56
..	..	.....	...	.....	.....	.....	.....	..	48	16	gravel	75	6	.22	100 00	57
..	..	.....	...	.....	.....	.....	.....	..	46	16	gravel	45	5	.14	100 00	58
..	..	.....	...	.....	.....	.....	.....	..	63	17	.....	.....	..	.19	98 70	59
..	..	.....	13	wood	.....	.....	.....	..	140	16	gravel	410	6	4.50	974 18	60
..	..	.....	...	.....	.....	.....	.....	..	1,120	16	gravel	1,120	6	7.00	275 00	61
..	..	.....	1	stone	.....	.....	.....	..	127	14	gravel	233	8	.50	200 00	62
..	..	.....	...	.....	earth	200	.....	..	.....	..	gravel	10	6	.03	101 06	63
..	..	.....	4	wood	.....	.....	5	10	156	14	.....	.....	..	3.00	100 50	64
..	..	.....	...	.....	.....	.....	.....	..	.....	..	gravel	231	6	.75	200 50	65
..	..	.....	7	wood	.....	.....	.....	..	960	18	gravel	1,200	8	7.00	1,516 97	66
..	..	.....	1	wood	.....	.....	.....	..	168	16	gravel	168	8	2.00	263 00	67
..	..	.....	...	.....	.....	.....	.....	..	85	18	gravel	70	6	.50	100 00	68
..	..	.....	...	.....	.....	.....	.....	..	750	16	gravel	60	6	2 50	100 00	69
..	..	.....	...	.....	.....	.....	.....	..	30	22	gravel	5	12	.50	100 00	70
..	..	.....	...	.....	.....	.....	40	60	40	20	.....	.....	..	.12	202 00	71
..	..	.....	...	.....	.....	.....	80	40	80	24	gravel	320	8	1.00	200 88	72
..	..	.....	...	.....	.....	.....	.....	..	160	24	gravel	160	10	.50	200 00	73
..	..	.....	...	.....	earth	*250	.....	..	400	16	.....	.....	..	2.00	195 90	74
..	..	.....	...	.....	.....	.....	.....	..	.....	..	gravel	114	5	.35	116 00	75
..	..	.....	...	.....	.....	.....	15	21	90	21	gravel	90	7	.28	200 00	76
..	..	.....	1	wood	.....	.....	.....	..	80	18	.....	.....	..	.25	100 87	77
..	..	.....	1	cedar	.....	.....	20	20	40	18	.....	.....	..	.12	103 65	78
..	..	.....	1	cedar	.....	.....	40	20	80	16	gravel	53	6	.25	200 00	79
..	..	.....	...	.....	.....	.....	.....	..	160	16	gravel	160	7	.50	161 77	80
..	..	.....	...	.....	.....	.....	.....	..	20	18	gravel	224	5	.76	293 91	81
..	..	.....	4	cedar	.....	.....	40	20	40	14	.....	.....	..	.12	99 76	82
..	..	.....	4	cedar	.....	.....	40	20	60	14	.....	.....	..	.18	104 00	83
..	..	.....	...	.....	.....	.....	.....	..	80	14	gravel	80	7	.25	100 00	84
..	..	.....	20	wood	.....	.....	.....	..	1,370	16	gravel	370	6	5.00	1,022 12	85
..	..	.....	...	.....	.....	.....	.....	..	32	16	earth	32	6	.10	300 00	86
..	..	.....	...	.....	.....	.....	.....	..	110	16	.....	.....	..	.34	100 00	87
..	..	.....	3	concrete	.....	.....	.....	..	150	17	.....	.....	..	.46	99 60	88
..	..	.....	3	wood	earth	50	12	8	124	18	gravel	16	6	1.00	150 00	89
..	..	.....	...	.....	.....	.....	.....	..	160	24	gravel	160	10	.50	218 95	90
..	..	.....	...	.....	.....	.....	.....	..	80	24	gravel	80	10	.25	100 00	91
..	..	.....	...	.....	.....	.....	.....	..	160	24	gravel	160	10	.50	180 50	92
..	..	.....	...	.....	.....	.....	.....	..	40	20	gravel	80	10	.25	151 28	93
..	..	.....	1	cedar	.....	.....	20	40	.....	..	gravel	80	10	.25	201 75	94
..	..	.....	...	.....	.....	.....	.....	..	.....	..	gravel	80	10	.25	104 73	95
..	..	.....	2	cedar	.....	.....	.....	..	.....	..	gravel	80	10	.75	202 50	96
..	..	.....	...	.....	.....	.....	.....	..	80	24	gravel	160	10	.50	200 00	97
..	..	.....	...	.....	.....	.....	.....	..	.....	..	gravel	160	10	.50	156 00	98
..	..	.....	...	.....	.....	.....	.....	..	.....	..	gravel	160	10	.50	109 00	99
..	..	.....	1	cedar	.....	.....	.....	..	.....	..	gravel	80	10	.25	100 95	100
..	..	.....	...	.....	.....	.....	.....	..	80	24	gravel	10	6	.50	198 00	101
..	..	.....	...	.....	.....	.....	.....	..	160	24	gravel	160	10	.50	199 00	102
..	..	.....	...	.....	.....	.....	.....	..	.....	..	gravel	61	5	.18	149 78	103
..	..	.....	...	.....	.....	.....	.....	..	.....	..	gravel	66	5	.19	150 00	104
..	..	.....	...	.....	.....	.....	.....	..	75	16	gravel	54	5	.39	100 00	105
..	..	.....	...	.....	.....	.....	.....	..	35	16	gravel	35	5	.10	99 60	106
..	..	.....	2	wood	.....	.....	.....	..	520	16	.....	.....	..	2.75	512 50	107
..	..	.....	...	.....	.....	.....	.....	..	160	16	.....	.....	..	.50	100 00	108

SCHEDULE SHOWING AMOUNT OF ROAD CONSTRUCTION UNDER THE ONTARIO,

NUMBER	NAME AND LOCATION OF WORK	NEW ROAD							DITCHED
		Cleared and Stumped		Graded and Shaped		SURFACED			
		Length, rods	Width, feet	Length, rods	Width, feet	Material	Length, rods	Width, feet	Length, rods
109	Herschel, con. 3, road								
110	Hinchinbrooke, Frontenac Road								
111	Horton Tp. Road								
112	Hungerford, lots 36-37, con. 1								
113	Hungerford, lot 1, con. 11								
114	Hungerford, lot 19, con. 8								
115	Huntingdon Tp. Road								
116	Kaladar, Kaladar and Tweed Road								
117	Kennebec, Arden and Harlowe								
118	Kennebec, Harlowe and Arden Road								
119	Kennebec, Arden and Kaladar Road								
120	Kennebec, Arden and Tamworth Road								
121	Kennebec and Olden, lots 1-9, con. 10								
122	Laxton, Digby and Longford, con. 5								
123	Laxton, Digby, Longford, lot 6, con. 9								
124	Laxton, Digby, Longford, Monck Rd								
125	Laxton and Carden, Victoria Road								
126	Limerick-Grimsthorpe, Bd'ry line								
127	Limerick, lots 23-24, con. 6								
128	Limerick, lot 21, con. 2								
129	Loughboro', Freeman Mill Road								14
130	Lutterworth, cons. 10-15								
131	Lyell Township Roads	960	24						
132	Madoc Township Roads								
133	Martland, Monetville-Noelville Road								
134	Marmora Township Roads								
135	Matawatchan, Denbigh Road								
135	Matawatchan, Madawaska River Rd								
136	Matawatchan, McGregor's Cor. Rd								
137	Matawan Township Road	87	40	87	15	gravel			20
138	Mayo, L'Amable Station Road								
139	Mayo, McArthur's Mills Road								
140	Mayo, Besserer and L'Amable St'n Rd								
141	Mayo, Long Lake Road								
142	Methuen Township Roads								
143	McClure, Hastings Road, N.								
144	McClure, Herschel and Peterson Rd								
145	McNabb Township Roads								
146	Minden Township Roads								
147	Monmouth Township Road			30	18				105
148	Monteagle, White Church Road								
149	Monteagle, Ballard's Cor., lots 10-11								
150	Monteagle, Robinson Settlement Rd								
151	Monteagle, Muscelow School House Rd								
152	Monteagle, Moxam Settlement Road								
153	North Algona, lots 27-29, con. 8								
154	North Algona, Bonnechere Road								
155	North Crosby, Wesport-Sherbrooke								
156	North Crosby, Bedford Mills								250
157	North Crosby sideroad								200
158	Olden Township Road								
159	Oso, Sharbot Lake Road								
160	Oso, lot 1, con. 20								
161	Pakenham, Halls Mills-Clayton Rd								

COLONIZATION ROADS BRANCH, DEPARTMENT OF PUBLIC WORKS, IN 1918.— *continued.*

BRIDGES			CULVERTS		OLD ROAD																			
					CUT* AND FILL		Side-Brushed		Graded and Shaped		SURFACED													
Number	Span	Material	Number	Material	Material	Cubic yards	Length, rods	Width, feet	Length, rods	Width, feet	Material	Length, rods	Width, feet	MILEAGE	EXPENDITURE								NUMBER	
									80	16	earth	80	7	.25	101	25	109							
											gravel	295	8	1.00	198	50	110							
											gravel	203	10	.62	203	00	111							
									80	16	gravel	80	7	.25	104	40	112							
			2	wood					80	16	gravel	80	7	.25	106	50	113							
									40	20														
												40	7	.12	102	50	114							
			1	wood					40	14	gravel	40	7	.12	101	25	115							
			1	rock	earth	5	120	20	47	8				1.00	130	09	116							
									160	16	gravel	160	7	1.00	200	00	117							
					earth	50			135	14	gravel	235	8	1.50	402	69	118							
			4	wood					320	16	gravel	320	6	2.00	199	50	119							
			2	cedar			40	10	60	10	gravel	95	8	.75	151	65	120							
									23	14	gravel	320	5	1.00	199	95	121							
									40	16	gravel	45	5	.12	99	86	122							
											gravel	90	6	.28	100	00	123							
									10	18	gravel	69	6	.75	100	00	124							
			1	wood					140	18	gravel	146	5	.75	200	00	125							
			2	cedar					80	16	gravel	80	7	.62	295	13	126							
			8	stone					160	12				.50	100	00	127							
			11	cedar					80	17				.25	100	00	128							
			1	tile	rock	10*								.04	305	15	129							
					stone	30					gravel	85	6	2.75	150	00	130							
			11	wood					715	14	gravel	60	10	7.00	997	99	131							
									80	16	gravel	80	6	.25	151	46	132							
									160	18	gravel	400	7	5.00	500	50	133							
					rock	500*			40	16	gravel	40	7	.12	151	75	134							
			1	cedar					80	24	gravel	80	12	.25	101	00	135							
									40	30	gravel	80	10	.25	103	50	135							
									40	30	gravel	40	14	.12	109	50	136							
			5	wood					380	15				2.06	406	25	137							
			1	wood					160	14	gravel	40	7	.50	203	25	138							
			1	cedar			40	20	80	14				.25	106	00	139							
							80	20	120	14				1.00	109	00	140							
			2	cedar			20	20	160	16				.50	208	65	141							
			2	cedar							gravel	220	5	.68	200	90	142							
									80	14				.25	101	70	143							
			4	cedar			40	20	80	14				.25	102	47	144							
									240	24	gravel	240	10	.75	401	00	145							
			3	wood	stone	117	320	20	123	16	earth	90	6	2.50	150	00	146							
			1	wood					53	18	gravel	20	6	5.00	149	65	147							
			1	cedar					120	14				.37	150	00	148							
			3	cedar					40	16	gravel	40	7	.12	100	00	149							
			1	cedar					80	16				.25	101	94	150							
1	16	wood	1	cedar					80	14	gravel	80	7	.25	201	36	151							
			2	cedar					120	14				.37	103	32	152							
											gravel	160	10	.50	152	25	153							
									120	24	gravel	120	10	.37	153	50	154							
									120	14	gravel	120	8	.50	150	00	155							
									125	16	gravel	125	8	.75	149	00	156							
									150	14				.50	100	00	157							
					earth	50			50	14	gravel	73	8	.75	200	00	158							
			1	pine	rock	1,475					gravel	12	8	.02	199	88	159							
											gravel	160	6	.50	200	00	160							
									160	24	gravel	160	10	.50	152	40	161							

SCHEDULE SHOWING AMOUNT OF ROAD CONSTRUCTION UNDER THE ONTARIO,

NUMBER	NAME AND LOCATION OF WORK	NEW ROAD							DITCHED
		Cleared and Stumped		Graded and Shaped		SURFACED			
		Length, rods	Width, feet	Length, rods	Width, feet	Material	Length, rods	Width, feet	Length, rods
162	Pakenham, 11th line from lot 11								
163	Palmerston, lot 11, con. 10								
164	Palmerston, Lavant and Ompah Road								
165	Palmerston, Ritchie Road								
166	Palmerston, N. and S. Canonto Rd								
167	Papineau Township Road	60	30	260	18				
168	Phelps Township Roads	640	40	50	16				
169	Pembroke, lots 18-19								
170	Pembroke, Muskrat River Road								
171	Pembroke, lots 3-4, con. 1								
172	Petawawa Township Road								
173	Radcliffe, Palmer Rapids Road								
174	Radcliffe, Kirwin Road								
175	Radcliffe, Barry's Bay Road								
176	Radcliffe, Babion Hill Road								
177	Raglan, McArthur's Mills Road								
178	Raglan, 5th con. road								
179	Raglan, 18th con. road								
180	Raglan, Combermere Road								
181	Raglan, Townline Road	40	40	40	30	gravel	40	10	
182	Raglan, Addington and Palmer R'pds.	80	50	80	20	gravel	160	8	
183	Rama, con. L, lots 2-3								
184	Rama, lots 10-11, con. "N"								
185	Ramsay, 7th line								
186	Rear of Leeds and Lansdowne, con. 6.								
187	Rear of Yonge, Charleston Lake Rd.								
188	Ross, cons. 4-5, lots 15-16								
189	Ross, lots 10-11, con. 1	80	66	240	22	gravel	40	10	
190	Sabine Tp. Roads	200	24	150	15				
191	Sebastopol, Giernan's Swamp Road								
192	Sebastopol, Opeongo line								
193	Sebastopol, Cormac and Foymount Rd.								
194	Sherbourne, Bobcaygeon Road								1.0
195	Sherbourne, lots 2-12								
196	Sherwood and Jones, 10th con.								
197	Sherwood and Jones, Wilno & Barry B.								
198	Sherwood and Jones, Siberia Road								
199	Sherwood and Jones, lot 30, con. 4								
200	Sherwood and Jones, lots 220-222								
201	Smith, Young's Point Road								
202	Snowdon, Monck Road								
203	Snowdon, Gelert to Minden Road								
204	South Crosby, Jones Falls Road								
205	South Crosby, Elgin and Jones Falls.								
206	South Algona, Mud Lake Road								
207	South Algona, Brudenell townline								
208	Springer, Smoky Falls Road								
209	Springer, Sturgeon Falls-Field Road								
210	Springer, Cache Bay to Field								
211	Stafford, Pembroke and Eganville Rd.								
212	Stafford, lots 6-7, easterly								
213	Storrington, Opinicon Road								
214	Tyendinaga, lots 10-11, con. 2								
215	Tudor and Cashel Tp. Road								

COLONIZATION ROADS BRANCH, DEPARTMENT OF PUBLIC WORKS, IN 1918.—*Continued.*

BRIDGES			CULVERTS		CUT* AND FILL		OLD ROAD									
							Side-Brushed		Graded and Shaped		SURFACED					
Number	Span	Material	Number	Material	Material	Cubic yards	Length, rods	Width, feet	Length, rods	Width, feet	Material	Length, rods	Width, feet	MILEAGE	EXPENDITURE	NUMBER
															$ c.	
..	..	.....	...	.....	.....	.....	.....	..	240	10	.....	.....	..	.75	300 00	162
..	..	.....	...	.....	rock	*1,100	.....	..	.....	..	.....	.....	..	.....	103 06	163
..	..	.....	...	.....	earth	60	.....	..	144	14	gravel	144	8	.50	212 60	164
..	..	.....	...	.....	.....	.....	.....	..	123	16	.....	.....	..	.38	100 00	165
..	..	.....	2	wood	earth	66	.....	..	150	14	gravel	62	8	.50	107 42	166
..	..	.....	14	wood	.....	.....	.....	..	1,460	16	gravel	60	6	5.75	1,016 75	167
..	..	.....	5	wood	.....	.....	.....	..	.....	..	.....	.....	..	3.75	500 00	168
..	..	.....	...	.....	.....	.....	20	40	80	24	gravel	120	10	.50	199 63	169
..	..	.....	...	.....	.....	.....	.....	..	320	24	gravel	320	10	1.00	400 00	170
..	..	.....	...	.....	.....	.....	.....	..	120	24	gravel	120	10	.37	200 00	171
..	..	.....	...	.....	.....	.....	.....	..	240	24	gravel	240	10	.75	300 00	172
..	..	.....	2	cedar	.....	.....	.....	..	.....	..	gravel	160	10	.50	200 00	173
..	..	.....	1	cedar	.....	.....	.....	..	.....	..	gravel	80	10	.25	100 00	174
..	..	.....	1	wood	.....	.....	.....	..	80	24	gravel	160	10	.50	199 34	175
..	..	.....	2	cedar	.....	.....	.....	..	.....	..	gravel	80	10	.25	98 70	176
..	..	.....	...	.....	.....	.....	.....	..	.....	..	gravel	80	10	.25	97 05	177
..	..	.....	...	.....	.....	.....	.....	..	40	24	gravel	80	10	.25	99 60	178
..	..	.....	...	.....	.....	.....	.....	..	200	24	gravel	240	10	.75	200 00	179
..	..	.....	3	cedar	.....	.....	.....	..	160	40	gravel	160	8	.50	200 00	180
..	..	.....	...	.....	.....	.....	.....	..	.....	..	.....	.....	..	.12	100 00	181
..	..	.....	6	cedar	.....	.....	.....	..	.....	..	.....	.....	..	.75	275 00	182
..	..	.....	...	.....	.....	.....	.....	..	.....	..	gravel	165	6	.52	251 61	183
..	..	.....	...	.....	.....	.....	.....	..	60	22	gravel	189	6	.58	250 00	184
..	..	.....	...	.....	.....	.....	.....	..	160	24	gravel	160	10	.50	301 50	185
..	..	.....	1	concrete	.....	.....	.....	..	.....	..	stone	104	6	.32	100 00	186
..	..	.....	...	.....	.....	.....	.....	..	.....	..	stone	280	6	.87	175 00	187
..	..	.....	...	.....	.....	.....	.....	..	80	24	gravel	80	10	.25	100 00	188
..	..	.....	1	cedar	.....	.....	.....	..	.....	..	.....	.....	..	.75	306 75	189
..	..	.....	8	wood	.....	.....	.....	..	600	16	.....	.....	..	3.00	398 50	190
..	..	.....	...	.....	.....	.....	.....	..	.....	..	gravel	80	10	.25	101 50	191
..	..	.....	...	.....	.....	.....	.....	..	.....	..	gravel	120	10	.37	100 00	192
..	..	.....	...	.....	.....	.....	.....	..	120	24	gravel	160	10	.50	201 00	193
..	..	.....	1	wood	earth	70	1,400	24	50	16	gravel	25	5	8.00	499 71	194
..	..	.....	...	.....	.....	.....	.....	..	20	16	gravel	30	6	1.00	102 00	195
..	..	.....	...	.....	.....	.....	.....	..	120	24	gravel	120	10	.37	100 50	196
..	..	.....	...	.....	.....	.....	.....	..	160	24	gravel	160	10	.50	204 80	197
..	..	.....	...	.....	.....	.....	.....	..	.....	..	gravel	80	10	.25	107 75	198
..	..	.....	...	.....	.....	.....	.....	..	.....	..	gravel	40	10	.12	102 50	199
..	..	.....	1	cedar	.....	.....	.....	..	120	24	gravel	120	10	.37	108 00	200
..	..	.....	2	wood	.....	.....	.....	..	24	18	stone	144	5	.52	403 30	201
..	..	.....	...	.....	.....	.....	50	20	200	20	gravel	115	6	1.50	195 75	202
..	..	.....	...	.....	.....	.....	.....	..	306	18	gravel	40	6	1.50	149 84	203
..	..	.....	...	.....	earth	355	.....	..	.....	..	.....	.....	..	.....	102 00	204
..	..	.....	1	cedar	.....	.....	.....	..	46	16	gravel	127	6	.25	152 50	205
..	..	.....	1	cedar	.....	.....	.....	..	160	24	gravel	160	10	.50	200 00	206
..	..	.....	...	.....	.....	.....	.....	..	.....	..	gravel	400	10	1.25	402 50	207
..	..	.....	...	.....	.....	.....	160	20	40	16	gravel	260	6	6.00	500 74	208
1	16	wood	2	wood	.....	.....	.....	..	140	20	gravel	600	8	3.00	749 67	209
1	16	wood	4	wood	.....	.....	.....	..	640	18	gravel	300	6	9.00	760 20	210
..	..	.....	...	.....	.....	.....	.....	..	120	24	gravel	120	8	.37	199 89	211
..	..	.....	...	.....	.....	.....	.....	..	160	24	gravel	160	10	.50	299 75	212
..	..	.....	3	stone	.....	.....	.....	..	60	12	gravel	70	8	.50	206 20	213
..	..	.....	...	.....	.....	.....	.....	..	160	14	gravel	160	7	.50	200 00	214
..	..	.....	...	.....	.....	.....	40	20	40	14	gravel	40	7	.12	151 53	215

SCHEDULE SHOWING AMOUNT OF ROAD CONSTRUCTION UNDER THE ONTARIO,

NUMBER	NAME AND LOCATION OF WORK	NEW ROAD							DITCHED
		Cleared and Stumped		Graded and Shaped		SURFACED			
		Length, rods	Width, feet	Length, rods	Width, feet	Material	Length, rods	Width, feet	Length, rods
216	Vennacher, Mallory Hill Road	.....	....	.....	....	.....	....	....	320
217	Vennacher, Rose Hill Road	.....	....	.....	....	.....	....	....	.....
218	Westmeath, Greenwood line	.....	....	.....	....	.....	....	....	.....
219	Wicklow, con. 2, road	.....	....	.....	....	.....	....	....	.....
220	Wicklow, lots 23-25, con. 8	.....	....	.....	....	.....	....	....	.....
221	Wicklow, Bangor and Peterson Road.	.....	....	.....	....	.....	....	....	.....
222	Widdifield Tp. Roads	85	20	185	12	gravel	30	6	.....
223	Wilberforce Tp. Roads	.....	....	.....	....	.....	....	....	.....
224	Wollaston Tp. Roads	.....	....	.....	....	.....	....	....	.....
225	Wylie Tp. Road, cons. 9-11	.....	....	.....	....	.....	....	....	.....
226	Addington Road, gravelling	.....	....	.....	....	.....	....	....	.....
	East Division	4,051	....	2,246	....	.....	459	....	3,446

COLONIZATION ROADS BRANCH, DEPARTMENT OF PUBLIC WORKS, IN 1918.—*Continued.*

BRIDGES			CULVERTS		CUT* AND FILL		OLD ROAD									
							Side-Brushed		Graded and Shaped		SURFACED					
Number	Span	Material	Number	Material	Material	Cubic yards	Length, rods	Width, feet	Length, rods	Width, feet	Material	Length, rods	Width, feet	MILEAGE	EXPENDITURE	NUMBER
..	..	.....	...	.....	.....	.....	.....	..	160	14	gravel	52	8	1.00	153 25	216
..	..	.....	...	.....	earth	175	.....	..	87	14	.....	.....	..	.50	250 00	217
..	..	.....	...	.....	.....	.....	.....	..	320	24	gravel	360	10	1.50	505 00	218
..	..	.....	...	.....	.....	.....	.....	..	40	15	.....	.....	..	1.00	100 00	219
..	..	.....	4	cedar	.....	.....	.....	..	80	24	gravel	320	10	1.00	181 75	220
..	..	.....	3	cedar	.....	.....	.....	..	160	14	gravel	80	7	.50	202 06	221
..	..	.....	12	wood	.....	.....	.....	..	380	18	gravel	560	12	4.50	1,344 26	222
..	..	.....	3	cedar	.....	.....	.....	..	840	20	gravel	1,120	10	3.50	1,366 00	223
..	..	.....	2	cedar	.....	.....	.....	..	160	14	gravel	60	7	.50	200 00	224
..	..	.....	...	.....	.....	.....	.....	..	160	30	gravel	320	10	1.00	402 75	225
..	..	.....	...	.....	.....	.....	.....	..	.....	..	gravel	800	5	2.75	2,163 60	226
14	..	.....	296	.....	.....	11,504	3,220	..	34,961	..	.....	29,945	..	246.66	59,588 13	

SCHEDULE SHOWING THE AMOUNT OF WORK OF ROAD CONSTRUCTION,

NUMBER	TOWNSHIP	Cleared and Stumped		GRADED		SURFACED		
		Length, rods	Width, feet	Length, rods	Width, feet	Material	Length, rods	Width, feet
	EAST DIVISION.							
1	Admaston, By-law No. 227		....	520	24	gravel	920	10
2	Bancroft, By-law No. 170	80	30	160	18	gravel	160	7
3	Bedford, By-law No. 30 B		....	234	16	gravel	219	8
4	Belmont and Methuen, By-law No. 595		....	316	18	gravel	486	5
5	Bromley, By-law No. 270		....	1,680	24	gravel	1,600	10
6	Caldwell, By-law No. 256		....	531	20	gravel	927	7
7	Camden, By-law No. 465		....	296	16	stone	1,425	8
8	Carlow, By-law No. 102	10	20	380	16	gravel	280	7
9	Casimir, Jennings & Appleby, By-law 80		....	1,100	20	gravel	380	7
10	Cosby and Mason, By-law No. 34		....	1,100	20	gravel	380	7
11	Dungannon, By-law No. 88	100	20	300	16	stone	20	7
12	Dummer, By-law No. 850		....	230	18	gravel	394	5
13	Douro, By-law No. DCCIII		....	116	18	gravel	376	5
14	Dysart, By-law No. 591	403	16	7,650	14	gravel	560	6
15	Eldon, By-law No. 470	200	10	389	22	gravel	642	6
16	Elzevir and Grimsthorpe, By-law No.32 A		....	560	14	gravel	520	7
17	Faraday, By-law No. 92		....	320	16	gravel	120	7
18	Grattan, By-law No. 268		....	640	24	gravel	720	10
19	Hinchinbrooke, By-law No. 3	273	10	1,043	16	gravel	418	8
20	Hungerford, By-law No. 215		....	480	16	gravel	400	8
21	Huntingdon, By-law No. 391	40	10	280	14	gravel	240	7
22	Limerick, By-law No. 4		....	160	14	gravel	320	7
23	Loughboro', By-law No. 102 A		....	250	18	stone	360	8
24	Madoc, By-law No. 33	40	20	720	16	gravel	400	8
25	Marmora and Lake, By-law No. 527	80	20	400	16	gravel	80	7
26	Martland, By-law No. 124		....	870	18	gravel	255	7
27	Mayo, By-law No. 313	100	20	280	16	gravel	240	7
28	Monteagle and Herschel, By-law No. 467	40	20	440	16	gravel	80	7
29	Newburg, By-law No. 202		....		....	stone	287	14
30	North Crosby, By-law No. 513		....	315	14	gravel	330	8
31	Olden, By-law No. 146 B		....	837	14	gravel	900	8
32	Oso, By-law No. 136		....	331	16	gravel	863	8
33	Portland, By-law No. 601		....	115	16	stone	440	8
34	Rama, By-law No. 354	15	10	420	20	gravel	629	5
35	Ratter & Dunnett, By-law No. 20	340	20	1,440	18	gravel	1,280	7
36	Rear Leeds and Lansdowne, By-law No. P.	32	15	148	16	stone	148	7
37	Richmond, By-law No. 643		....	75	15	gravel	273	5
38	Ross, By-law No. 355		....	1,918	24	gravel	1,833	10
39	Stafford, By-law No. 682		....	1,390	24	gravel	720	10
40	Stanhope, By-law No. 344		....	325	18	gravel	395	5
41	Somerville, By-law No. 696		....	4	16	gravel	304	5
42	South Crosby, By-law No. 849		....		....	stone	270	9
43	Tudor and Cashel, By-law No 10		....	640	14	gravel	640	7
44	Tyendinaga, By-law No. 668		....	560	16	gravel	560	7
45	Westmeath, By-law No. 194		....	1,531	24	gravel	1,027	7
46	Wollaston, By-law No. 1	120	20	560	14	gravel	240	7
	Total	1,873	....	32,054	....		24,061	....

COLONIZATION ROADS BRANCH, UNDER MUNICIPAL BY-LAWS, 1918

DITCHED	CUT* OR FILL		BRIDGES			CULVERTS		NEW ROAD MILEAGE	OLD ROAD MILEAGE	GOVERNMENT EXPENDITURE	NUMBER
Length, rods	Material	Amount in cubic yards	Number	Span, feet	Material	Number	Material				
										$ c.	
.....	rock*	20	.....	.....	.....	.....	.....	.....	2.85	749 75	1
.....	.....	.....	.....	.....	.....	.....	.....	.....	.50	125 00	2
.....	.....	.....	.....	.....	.....	2	stone	.....	1.00	400 00	3
.....	.....	.....	.....	.....	.....	2	concrete	.....	1.76	499 53	4
.....	.....	.....	.....	.....	.....	.....	.....	.....	5.25	1,200 00	5
.....	earth	100	.....	.....	.....	14	wood	.....	5.00	888 20	6
.....	.....	.....	.....	.....	.....	.....	.....	.....	5.00	1,000 00	7
.....	.....	.....	1	16	cedar	6	cedar	.....	1.12	300 00	8
.....	.....	.....	.....	.....	.....	.....	.....	.....	4.00	2 00 00	9
90	.....	.....	.....	.....	.....	8	wood	.....	5.00	390 36	10
20	earth	100	.....	.....	.....	11	cedar	.....	1.00	250 00	11
.....	.....	.....	.....	.....	.....	.....	.....	.....	1.25	300 00	12
.....	.....	.....	.....	.....	.....	.....	.....	.....	1.18	200 00	13
.....	earth	50	.....	.....	.....	15	wood	.....	58.00	1,000 00	14
.....	.....	.....	.....	.....	.....	2	metal	.....	3.46	499 73	15
.....	.....	.....	.....	.....	.....	{2 cedar {2 metal		.....	1.75	381 93	16
.....	.....	.....	.....	.....	.....	5	cedar	.....	1.00	150 00	17
.....	.....	.....	.....	.....	.....	.....	.....	.....	2.25	499 59	18
.....	earth	50	.....	.....	.....	10	tile	.....	3.25	950 00	19
.....	.....	.....	.....	.....	.....	1	plank	.....	2.00	200 00	20
.....	earth	160	.....	.....	.....	4	cedar	.....	1.00	300 00	21
.....	.....	.....	.....	.....	.....	4	cedar	.....	1.00	300 00	22
.....	.....	.....	.....	.....	.....	2	metal	.....	1.25	300 00	23
.....	.....	.....	.....	.....	.....	.....	.....	.....	2.25	400 00	24
.....	.....	.....	.....	.....	.....	3	cedar	.....	1.00	199 99	25
.....	.....	.....	1	19	wood	7	wood	.....	10.00	500 00	26
.....	.....	.....	.....	.....	.....	7	cedar	.....	1.00	300 00	27
.....	stone*	20	1	24	cedar	10	cedar	.....	1.50	400 00	28
.....	.....	.....	.....	.....	.....	.....	.....	.....	.90	200 00	29
350	.....	.....	.....	.....	.....	.....	.....	.....	1.03	300 00	30
.....	.....	.....	.....	.....	.....	4	tile	.....	3.00	750 00	31
96	.....	.....	.....	.....	.....	4	wood	.....	3.00	400 00	32
.....	.....	.....	.....	.....	.....	.....	.....	.....	1.75	400 00	33
20	stone	20	.....	.....	.....	4	cedar	.....	5.00	450 00	34
.....	earth	60	.....	.....	.....	8	wood	.....	8.00	700 00	35
.....	rock*	35	.....	.....	.....	3	metal	.....	1.00	236 38	36
.....	.....	.....	.....	.....	.....	.....	.....	.....	.85	200 00	37
.....	.....	.....	.....	.....	.....	.....	.....	.....	6.30	1,000 00	38
.....	.....	.....	.....	.....	.....	.....	.....	.....	4.03	596 14	39
.....	stone	30	.....	.....	.....	1	wood	.....	6.00	200 00	40
.....	rock*	25	.....	.....	.....	2	stone	.....	4.00	300 00	41
.....	.....	.....	.....	.....	.....	.....	.....	.....	.84	250 00	42
.....	clay	40	.....	.....	.....	8	cedar	.....	2.50	525 00	43
.....	.....	.....	.....	.....	.....	6	cedar	.....	1.75	350 00	44
.....	.....	.....	.....	.....	.....	2	cedar	.....	5.00	750 00	45
.....	.....	.....	.....	.....	.....	5	cedar	.....	1.75	400 00	46
576	.....	710	3	.....	.....	164	.....	.....	182.32	20,891 60	

SCHEDULE SHOWING AMOUNT OF ROAD CONSTRUCTION UNDER THE
ONTARIO.

NUMBER	NAME AND LOCATION OF WORK	NEW ROAD							DITCHED
		Cleared and Stumped		Graded and Shaped		SURFACED			
		Length, rods	Width, feet	Length, rods	Width, feet	Material	Length, rods	Width, feet	Length, rods
1	Armstrong Carlton Road	.....	....	.....	....	.....	....	....	160
2	Armstrong, con. 3, lots 4-5	.....	....	.....	....	.....	....	....	.....
3	Armstrong, lot 3, con. 6	.....	....	.....	....	.....	....	....	.....
4	Armstrong, Kerns townline	.....	....	.....	....	.....	....	....	.....
5	Brethour, con. 5, lot 7, west	320	40	.....	....	.....	....	....	.....
6	Brethour, con. 6, lot 5	.....	....	.....	....	.....	....	....	.....
7	Brethour, lots 10-11, con. 3	90	30	.....	....	.....	....	....	35
8	Brethour, cons. 2-3, lots 5-8	160	30	120	22	.....	....	....	.....
9	Brethour, lots 8-9, con. 6	170	40	.....	....	.....	....	....	20
10	Brethour, lots 6-7, con. 6	.....	....	.....	....	.....	....	....	.....
11	Brethour, con. 1-3, lots 6-7	.....	....	.....	....	.....	....	....	.....
12	Brethour, con. 5, lots 6-7	.....	....	.....	....	.....	....	....	.....
13	Brethour, S. ½ lot 6, N. ½ 6, Casey.	.....	....	.....	....	.....	....	....	.....
14	Bucke, road from High Falls	160	40	160	22	.....	....	....	.....
15	Bucke, Mill Creek Road	.....	....	.....	....	.....	....	....	.....
16	Bucke, S. Bd'ry to Haileybury	.....	....	.....	....	.....	....	....	.....
17	Bucke, Mill Creek Road, Monforts	.....	....	.....	....	.....	....	....	480
18	Bucke, Government Road, Cobalt W.	.....	....	.....	....	.....	....	....	.....
19	Casey, cons. 5-7	.....	....	.....	....	.....	....	....	80
20	Casey, lots 7-8, cons. 1-2	.....	....	.....	....	.....	....	....	320
21	Casey, Main Road, through Mine	.....	....	.....	....	.....	....	....	.....
22	Casey, lots 4-5, Harris Bd'ry	480	40	.....	....	.....	....	....	.....
23	Casey-Harris townline	.....	....	.....	....	.....	....	....	480
24	Cane, lots 8-9, cons. 3-4	.....	....	.....	....	.....	....	....	.....
25	Cane, cons. 3-5, lots 4-5 9..	.....	....	.....	....	.....	....	....	.....
26	Cane, lots 11-12, cons. 5-6	320	40	.....	....	.....	....	....	.....
27	Cane, lots 6 7, con. 5	.....	....	.....	....	.....	....	....	50
28	Cane, cons. 2-3, lots 4-6	150	12	279	24	.....	....	....	259
29	Cane, 5th con., lot 1	.....	....	.....	....	.....	....	....	52
30	Cane and Barber Tp. Road	.....	....	.....	....	.....	....	....	.....
31	Dymond, East Road	.....	....	.....	....	.....	....	....	.....
32	Dymond, North Road, cons. 5-6	.....	....	.....	....	.....	....	....	.....
33	Dymond, West Angle, lot 7, con. 5	320	33	.....	....	.....	....	....	100
34	Dymond, Chester Bridge fill	.....	....	.....	....	.....	....	....	.....
35	Dymond, West Road, con. 2, lot 8	.....	....	.....	....	.....	....	....	.....
36	Dymond, lots 8-9, con. 6	.....	....	.....	....	.....	....	....	.....
37	Dymond-Harley townline, lot 9	.....	....	.....	....	.....	....	....	24
38	Dymond-Harley, T.L. from Uno Pk...	.....	....	.....	....	.....	....	....	235
39	Firstbrook, Main Road w., con. 5	.....	....	.....	....	.....	....	....	.....
40	Firstbrook, East Bd'ry, con. 5	.....	....	.....	....	.....	....	....	40
41	Firstbrook, con. 5, to Cobalt Road	.....	....	.....	....	.....	....	....	.....
42	Firstbrook, con. 3, lots 1-2	320	40	10	16	.....	....	....	.....
43	Firstbrook, N. Bd'ry, lots 4-5	.....	....	.....	....	.....	....	....	200
44	Harley and Kerns townline, cons. 4-5	.....	....	.....	....	.....	....	....	.....
45	Harley, North Road to Casey Bd'ry.	.....	....	.....	....	.....	....	....	160
46	Harley, con. 6	.....	....	.....	....	.....	....	....	160
47	Harley, lots 9-12, cons. 2-3	.....	....	.....	....	.....	....	....	240
48	Harley, cons. 1-2, lots 11-12	.....	....	.....	....	.....	....	....	120
49	Harley-Casey, cons. 1-2-3	.....	....	.....	....	.....	....	....	.....
50	Harley-Casey, cons. 3-4, lot 9	.....	....	.....	....	.....	....	....	.....
51	Harris Main Road	.....	....	.....	....	.....	....	....	118
52	Harris, Lake Shore Road	.....	....	.....	....	.....	....	....	640
53	Harris, con. 4, lots 4-5	.....	....	.....	....	.....	....	....	380

COLONIZATION ROADS BRANCH, DEPARTMENT OF PUBLIC WORKS.
IN 1918.—*Continued.*

BRIDGES			CULVERTS		CUT* AND FILL	OLD ROAD									
						Side-Brushed		Graded and Shaped		SURFACED					
Number	Span	Material	Number	Material	Material	Length, rods	Width, feet	Length, rods	Width, feet	Material	Length, rods	Width, feet	MILEAGE	EXPENDITURE	NUMBER
														$ c.	
..	..	.....	2	wood	.....	.....	240	20	200	22	gravel	30	6	.75	350 87	1
..	..	.....	..	.....	.....	.....	.....	..	.....	..	gravel	60	6	.25	351 50	2
..	..	.....	..	.....	.....	.....	.....	..	.....	..	.....	.....	..	1.00	300 00	3
..	..	.....	..	.....	.....	.....	.....	..	.....	..	gravel	230	6	.75	520 78	4
..	..	.....	..	.....	.....	.....	.....	..	.....	..	.....	.....	..	1.00	300 00	5
..	..	.....	2	wood	earth	42	.....	..	.....	..	.....	.....	..	.25	199 87	6
..	..	.....	1	wood	.....	.....	.....	..	.....	..	.....	.....	..	.25	200 00	7
..	..	.....	..	.....	.....	.....	.....	..	.....	..	.....	.....	..	.50	388 28	8
..	..	.....	..	.....	.....	.....	.....	..	.....	..	.....	.....	..	.75	200 00	9
..	..	.....	12	wood	earth	770	.....	..	1,280	26	.....	.....	..	5.00	550 00	10
..	..	.....	..	.....	.....	.....	.....	..	960	24	gravel	20	13	3.00	212 50	11
..	..	.....	1	wood	earth	910	.....	..	.....	..	.....	.....	..	.....	300 00	12
..	..	.....	..	.....	.....	.....	.....	..	.....	..	gravel	200	6	1.50	294 62	13
1	16	wood	..	.....	stone	50	.....	..	.....	..	.....	.....	..	.50	706 08	14
..	..	.....	..	.....	.....	.....	.....	..	240	20	.....	.....	..	.75	101 75	15
..	..	.....	..	.....	.....	.....	.....	..	.....	..	stone	640	6	2.00	97 88	16
..	..	.....	..	.....	.....	.....	.....	..	.....	..	stone	480	6	1.50	197 75	17
..	..	.....	3	wood	.....	.....	40	6	320	20	gravel	20	10	1.00	96 25	18
..	..	.....	..	.....	earth	88	.....	..	180	26	gravel	120	12	.75	300 75	19
..	..	.....	..	.....	.....	.....	.....	..	.....	..	gravel	160	6	1.00	299 12	20
..	..	.....	..	.....	.....	.....	140	8	140	24	gravel	190	7	1.00	900 00	21
..	..	.....	..	.....	.....	.....	.....	..	.....	..	.....	.....	..	1.50	499 82	22
..	..	.....	..	.....	.....	.....	.....	..	320	16	.....	.....	..	1.75	300 63	23
..	..	.....	..	.....	.....	.....	.....	..	160	24	gravel	320	6	2.00	199 65	24
..	..	.....	..	.....	.....	.....	.....	..	480	24	gravel	90	6	1.75	299 87	25
..	..	.....	..	.....	.....	.....	.....	..	.....	..	.....	.....	..	1.00	410 37	26
..	..	.....	..	.....	.....	.....	.....	..	160	24	gravel	30	7	.50	306 71	27
..	..	.....	2	wood	.....	.....	.....	..	.....	..	.....	.....	..	1.00	499 98	28
..	..	.....	10	wood	.....	.....	.....	..	960	20	gravel	30	16	3.00	468 12	29
1	24	wood	..	.....	.....	.....	.....	..	.....	..	.....	.....	..	.....	78 75	30
..	..	.....	..	.....	.....	.....	.....	..	.....	..	gravel	474	6	1.50	1,700 00	31
..	..	.....	1	wood	earth	74	.....	..	240	24	gravel	540	6	2.25	1,800 00	32
..	..	.....	..	.....	.....	.....	.....	..	.....	..	.....	.....	..	1.00	345 25	33
..	..	.....	..	.....	stone & gravel	120	.....	..	.....	..	.....	.....	..	.....	130 00	34
..	..	.....	1	wood	.....	.....	.....	..	200	26	gravel	509	6	1.75	1,700 00	35
..	..	.....	..	.....	earth	999	.....	..	150	28	gravel	56	7	.50	640 06	36
..	..	.....	2	wood	earth	110	.....	..	.....	..	.....	.....	..	.....	201 00	37
..	..	.....	1	wood	.....	.....	160	10	645	28	gravel	172	6	2.50	692 95	38
..	..	.....	4	wood	.....	.....	160	15	350	24	.....	.....	..	1.09	400 00	39
..	..	.....	..	.....	.....	.....	.....	..	40	24	gravel	160	7	1.50	254 65	40
..	..	.....	..	.....	stone	148	.....	..	.....	..	gravel	60	7	.75	134 25	41
1	16	wood	..	.....	.....	.....	320	30	400	22	.....	.....	..	2.25	697 60	42
..	..	.....	1	wood	.....	.....	.....	..	80	24	gravel	40	8	.50	285 93	43
..	..	.....	..	.....	.....	.....	.....	..	cros s		lay.....	103	4	.32	399 37	44
..	..	.....	..	.....	.....	.....	.....	..	360	24	.....	.....	..	.25	304 50	45
..	..	.....	..	.....	.....	.....	.....	..	.....	..	.....	.....	..	.50	16 70	46
..	..	.....	1	wood	earth	26	.....	..	10	24	.....	.....	..	1.50	200 00	47
..	..	.....	..	.....	.....	.....	.....	..	120	24	gravel	80	7	1.00	200 00	48
1	16	woodR	1	wood	.....	.....	240	10	960	16	.....	.....	..	3.00	300 00	49
..	..	.....	..	.....	.....	.....	.....	..	476	24	gravel	134	7	1.50	450 00	50
..	..	.....	5	wood	gravel	266	.....	..	.....	..	gravel	183	7	4.00	648 42	51
..	..	.....	3	wood	.....	.....	.....	..	.....	..	gravel	222	6	2.70	551 47	52
..	..	.....	3	wood	.....	.....	.....	..	320	24	.....	.....	..	1.00	200 00	53

SCHEDULE SHOWING AMOUNT OF ROAD CONSTRUCTION UNDER THE ONTARIO,

NUMBER	NAME AND LOCATION OF WORK	NEW ROAD							DITCHED
		Cleared and Stumped		Graded and Shaped		SURFACED			
		Length, rods	Width, feet	Length, rods	Width, feet	Material	Length, rods	Width, feet	Length, rods
54	Harris and Dymond townline east	.....	....	.....	....	.....	....	....	.....
55	Harris and Casey townline to River	.....	....	.....	....	.....	....	....	.....
56	Henwood, cons. 4-5, on sideline	.....	....	320	22	.....	....	....	40
57	Henwood, lots 4-5, con. 3	160	20	160	10	.....	....	....	80
58	Henwood, cons. 3-4, lot 7	.....	....	.....	....	.....	....	....	.....
59	Henwood, con. 5, south ½ mile	.....	....	.....	....	.....	....	....	.....
60	Henwood, con. 3, lots 8-9	160	30	480	24	.....	....	....	480
61	Henwood, between lots 10-11 to 6-7	.....	....	.....	....	.....	....	....	400
62	Henwood, north from Kenabeek S.	80	35	160	22	.....	....	....	.....
63	Henwood, Stadelman's Road	140	30	80	22	.....	....	....	.....
64	Henwood, lots 10-11, con. 3, S.	240	30	160	24	gravel	35	7	.....
65	Henwood, Main Road west Big Hill	.....	....	.....	....	.....	....	....	290
66	Henwood, lot 1, con. 6	.....	....	.....	....	.....	....	....	.....
67	Henwood, lot 2, con. 4	.....	....	.....	....	.....	....	....	.....
68	Hilliard, Gravel Pit Road	317	30	.....	....	.....	....	....	.....
69	Hilliard, North Road, cons. 1-2	.....	....	.....	....	.....	....	....	.....
70	Hilliard, con. 2, lots 11-12	320	35	140	30	.....	....	....	.....
71	Hilliard and Armstrong townline	.....	....	.....	....	.....	....	....	.....
72	Hilliard and Armstrong, con. 3	.....	....	.....	....	.....	....	....	.....
73	Hilliard, S. T. L., lots 2-6	.....	....	.....	....	.....	....	....	.....
74	Hilliard-Harley townline	.....	....	.....	....	.....	....	....	.....
75	Hudson, lots 8-9, con. 5	.....	....	.....	....	.....	....	....	.....
76	Hudson, Twin Lake Road, lots 7-10	.....	....	.....	....	.....	....	....	160
77	Hudson, con. 5, lots 6-7	.....	....	.....	....	.....	....	....	40
78	Hudson, con. 6, North on Bd'ry	.....	....	.....	....	.....	....	....	20
79	Hudson, con. 6, lots 2-3	.....	....	.....	....	.....	....	....	.....
80	Hudson, con. 6 to Kerns Bd'ry	.....	....	.....	....	.....	....	....	.....
81	Ingram and Hilliard, T. L., lots 3-4	300	40	.....	....	.....	....	....	.....
82	Kerns, lots 6-7, con. 6	240	46	80	24	.....	....	....	.....
83	Kerns, from T. & N. O.	.....	....	.....	....	.....	....	....	.....
84	Kerns, cons. 2-3, lots 1-4	.....	....	320	24	.....	....	....	.....
85	Kerns, West Road from T.N.O.	.....	....	.....	....	.....	....	....	.....
86	Tudhope, lot 5, cons. 1-2, N.W.	400	36	240	24	gravel	36	6	.....
87	Tudhope and Cane T. L. cons. 2-3	190	25	320	26	.....	....	....	640
		5,037	....	3,029	....	.....	71	....	6,503

COLONIZATION ROADS BRANCH, DEPARTMENT OF PUBLIC WORKS, IN 1918.—*Continued.*

BRIDGES			CULVERTS		CUT* AND FILL		OLD ROAD										
							Side-Brushed		Graded and Shaped		SURFACED						
Number	Span	Material	Number	Material	Material	Cubic yards	Length, rods	Width, feet	Length, rods	Width, feet	Material	Length, rods	Width, feet	MILEAGE	EXPENDITURE		NUMBER
..	..	.....	1	wood	earth	256	.....	..	.....	..	.....	.....	..	.....	496	88	54
..	..	.....	..	.....	.....	.....	.....	..	.....	..	gravel	125	5	.75	197	62	55
..	..	.....	1	wood	.....	.....	.....	..	.....	..	.....	.....	..	1.00	350	00	56
..	..	.....	1	wood	.....	.....	.....	..	.....	..	.....	.....	..	.50	150	51	57
..	..	.....	..	.....	.....	.....	.....	..	640	22	.....	.....	..	2.00	200	00	58
..	..	.....	..	.....	.....	.....	.....	..	160	24	.....	.....	..	.50	200	00	59
..	..	.....	..	.....	.....	.....	.....	..	.....	..	.....	.....	..	1.50	198	98	60
..	..	.....	..	.....	earth	22	.....	..	.....	..	.....	.....	..	2.00	300	98	61
..	..	.....	4	wood	earth	583	.....	..	.....	..	.....	.....	..	.75	400	00	62
3	16	wood	..	.....	earth	391	.....	..	.....	..	.....	.....	..	.75	299	98	63
..	..	.....	..	.....	.....	.....	.....	..	.....	..	.....	.....	..	.75	596	54	64
..	..	.....	1	wood	.....	.....	160	10	200	15	gravel	195	7	2.00	700	00	65
..	..	.....	..	.....	earth	300	.....	..	280	20	gravel	40	7	1.00	150	00	66
..	..	.....	..	.....	(cement	10)	.....	..	.....	..	.....	.....	..	.....	32	42	67
..	..	.....	..	.....	.....	.....	.....	..	.....	..	.....	.....	..	1.00	199	62	68
..	..	.....	..	.....	stone	10	.....	..	.....	..	gravel	300	6	1.00	499	70	69
..	..	.....	1	wood	earth	472	.....	..	.....	..	.....	.....	..	1.00	400	00	70
..	..	.....	..	.....	.....	.....	.....	..	480	24	gravel	194	6	1.56	499	91	71
..	..	.....	..	.....	.....	.....	.....	..	.....	..	gravel	140	7	.50	199	88	72
..	..	.....	..	.....	.....	.....	.....	..	.....	..	gravel	450	6	1.40	798	96	73
..	..	.....	..	.....	.....	.....	.....	..	.....	..	gravel	300	6	1.00	800	00	74
..	..	.....	1	wood	.....	.....	.....	..	.....	..	gravel	60	7	1.00	450	00	75
..	..	.....	3	wood	.....	.....	.....	..	.....	..	gravel	160	7	.50	150	00	76
..	..	.....	1	wood	earth	83	.....	..	185	24	gravel	135	6	1.00	300	00	77
..	..	.....	..	.....	stone	28	.....	..	.....	..	gravel	260	6	1.25	401	71	78
..	..	.....	..	.....	.....	.....	.....	..	.....	..	gravel	250	6	.75	200	00	79
..	..	.....	..	.....	.....	.....	.....	..	160	24	gravel	140	6	1.00	301	65	80
..	..	.....	..	.....	.....	.....	.....	..	.....	..	.....	.....	..	1.00	450	00	81
..	..	.....	..	.....	.....	.....	.....	..	.....	..	.....	.....	..	1.00	398	56	82
..	..	.....	..	.....	.....	.....	.....	..	.....	..	gravel	240	8	.75	249	92	83
..	..	.....	3	wood	earth	892	.....	..	320	24	.....	.....	..	2.00	255	35	84
..	..	.....	1	wood	.....	.....	.....	..	.....	..	gravel	252	..	.75	599	99	85
..	..	.....	2	wood	.....	.....	.....	..	.....	..	.....	.....	..	1.25	998	77	86
2	15	wood	8	wood	.....	.....	.....	..	.....	..	.....	.....	..	2.00	802	65	87
9	..	.....	84	.....	.....	6,650	1,460	..	12,176	..	.....	8,588	..	102.51	35,414	63	

SCHEDULE SHOWING THE AMOUNT OF WORK OF ROAD CONSTRUCTION

NUMBER	TOWNSHIP	CLEARED AND STUMPED		GRADED		SURFACED		
		Length, rods	Width, feet	Length, rods	Width, feet	Material	Length, rods	Width, feet
	TEMISKAMING							
1	Brethour, By-law No. 8	415	20	2,600	24	earth	195	16
2	Bucke, By-law No. 212	640	40	2,960	24	gravel	910	7
3	Casey, By-law No. 48	480	40	880	24	gravel	842	7
4	Chamberlain, By-law No. 54	36	66	5,360	28	earth	400	8
5	Dymond, By-law No. 172	60	40	1,840	24	gravel	472	7
6	Harley, By-law No. 227	.....	....	3,180	24	gravel	755	7
7	Harris, By-law No. 57	.....	....	480	28	gravel	270	7
8	Hilliard, By-law No. 98	.....	32	320	24	.....	.....	....
9	Hudson, By-law No. 70	.....	....	730	24	gravel	320	8
10	Kerns, By-law No. 157	.....	....	320	24	gravel	716	7
11	Tisdale, By-law No. 155	184	30	184	24	br. stone	184	11
		1,815	....	18,854	....	.....	5,064	....

COLONIZATION ROADS BRANCH, UNDER MUNICIPAL BY-LAWS, 1918

DITCHED	CUT* OR FILL		BRIDGES			CULVERTS		NEW ROAD MILEAGE	OLD ROAD MILEAGE	GOVERNMENT EXPENDITURE	NUMBER
Length, rods	Material	Amount in Cubic yards	Number	Span, feet.	Material	Number	Material				
										$ c.	
1,000	earth	1,890	1	80	r,wood	12	wood	2.75	12.0	1,271 00	1
1,120	.....	.....	.....	.....	.....	5	wood	1.50	15.5	1,049 04	2
1,863	rock	100	11	24	wood	4	wood	1.50	10.0	2,062 50	3
30	.....	.....	.....	.....	.....	19	wood	.11	18.0	460 38	4
305	earth	3,768	1	70	wood	21	wood	.50	15.5	1,671 05	5
400	earth	817	.....	.....	.....	8	wood	.....	20.0	1,498 84	6
1,020	.....	.....	.....	.....	.....	1	wood	.....	5.0	404 99	7
160	.....	.....	4	52	wood	.....	.....	.....	2.0	249 28	8
800	.....	.....	1	40	r,wood	.....	.....	.....	4.5	250 00	9
.....	earth	2,160	1	15	wood	1	wood	.....	3.8	1,500 00	10
400	.....	.....	.....	.....	.....	2	wood	.35	.....	1,000 00	11
7,098	.....	8,735	19	.....	.....	73	.....	6.71	106.3	11,417 08	

MISCELLANEOUS.

North Division.

Item.	Expenditure.	
1. Southworth Tp., R.W. Lot 15, C.P.R. Right-of-Way	$1 00	
2. Carnarvon Road, balance, 1917	14 64	
3. Gorham and Ware, balance, 1917	198 32	
4. Aweres Tp., balance, 1917	28 85	
5. Tarentorus Tp., balance, 1917	44 85	
6. Billings Tp., balance, 1917	10 25	
7. Ware and Gorham Tp., balance, 1917	102 91	
8. Dorion Tp. balance, 1917	15 00	
9. Sheguiandah Tp. balance, 1917	10 00	
10. Gorham Tp., balance, 1917	25 50	
11. Zeeland Tp. Road, balance, 1917	9 62	
12. Ware Tp., balance, 1917	26 15	
13. Dorion Tp., balance, 1917	22 00	
14. Dill Tp., balance, 1917	8 25	
15. Inspection balances, 1917	241 20	
16. Jaffray and Mellick By-law No. 82, balance, 1917	751 18	
17. John McAnsh, Inspection, 1917	78 00	
18. E. P. A. Phillips, Survey Pt. William and Port Arthur Districts, 1917	98 00	
19. J. Barkley, locating roads, Johnston Township	18 95	
20. J. Barkley, locating Parkinson Road	26 85	
21. E. P. A. Phillips (Phillips & Benner), survey and plans, Fort William and Port Arthur Districts	529 90	
22. C. H. Meader, survey expenses	99 25	
23. Road machinery	1,868 94	
24. W. H. Munro, rent of storehouse, 1916-8	72 00	
24. John McNee, rent of storehouse, 1918	36 00	
25. W. H. Munro Estate, Inspection, 1917 (Special Warrant)..	438 00	
26. H. Tasse, fire damages west ½ lot 3, Con. 1, Capreol Tp. (Special Warrant)	400 00	
27. Inspection, 1918	4,601 82	
Total		$9,780 43

West Division.

28. Tay Tp., Thunder Bay Road, balance, 1917	$32 50	
29. McDougal Tp., balance, 1917	4 00	
30. Foley, Tp., balance, 1917	25 08	
31. Strong Tp., Distress River Road, balance, 1917	55 72	
32. Hagerman Tp., Shawanaga Road, balance, 1917	23 82	
33. Medonte Tp., lot 30, balance, 1917	24 20	
34. Mowat Road, balance, 1917	18 74	
35. Medora and Wood, balance, 1917	2 34	
36. Inspection	2,024 30	
Total		$2,210 70

East Division.

37. Bancroft to Bower's Corners, timber	$151 00
38. Bronson and Bancroft Road, timber	66 00
39. Monteagle, Valley Road, timber	60 00
40. Addington Road, road drag	25 99
41. Tudor and Cashel By-law, 1917	17 37
42. Bush and Haddock Road, 1917	22 24
43. Bexley Tp. Road, 1917	10 17
44. Rama Tp., Housey's Rapids Road, 1917	44 65
45. Chandos Road, 1917	9 95
46. Arden and Barrie Road, 1917	25 00
47. Cordova Road, 1917	14 56
48. Crearer Road, 1917	31 00
49. Yankleek Road, 1917	6 87

Item.	Expenditure	
50. Long Lake Settlement Road, 1917	$50 00	
51. Raymond's Corners Road, 1917	41 07	
52. Loughboro' and Bedford Road, 1917	17 02	
53. Bonfield Tp. Road, 1917	14 69	
54. Peterson Road, Maynooth to Combermere	24 37	
55. Buck Lake Road, balance, 1917	26 05	
56. Balance Inspection, 1917	540 58	
57. James Bay, locating portion Addington Road	15 00	
58. John Bailey, Inspection, 1916	18 00	
59. Dunlop & Co., culverts for Addington Road, 1917	631 80	
60. Hungerford, By-law No. 205, 1917	100 00	
61. Dummer Road, 1917	50 00	
62. Inspection	6,375 78	
Total		$8,389 16

TEMISKAMING DIVISION.

63. G. F. Summers, engineering services, Gowganda Road	$48 70	
64. G. F. Summers, engineering services, Wigwam Bridge	18 85	
65. Gowganda Road, timber for Wigwam Bridge	1,041 82	
66. Gowganda Road, Wigwam Bridge contract	330 00	
67. Road machinery	369 58	
68. Storage of road machinery, W. E. Kerr	72 00	
69. T. & N. O., rent of storehouse site	3 75	
70. Harris and Casey Road, balance, 1917	5 00	
71. Henwood Tp. Road, balance, 1917	50 25	
72. Firstbrook Tp. Road, balance, 1917	61 25	
73. Gowganda Road, Craig account, 1917	414 68	
74. Cane and Barber, balance, 1917	15 50	
75. Sutcliffe and Neelands, survey Harris Township Road	21 00	
76. Grant to Dymond Township	500 00	
77. Inspection	901 95	
Total		$3,854 33
78. Colonization Roads, over-expenditures, 1917		284 27
Total miscellaneous		$24,518 89

No.	RECAPITULATION	Cleared and stumped	Graded and shaped	Surfaced	Ditched	Cut and fill	Bridges	Culverts	New Road	Old Road	EXPENDITURE	No.
		rods	rods	rods	rods	cu. yds.	number	number	miles	miles		
											$ c.	
1	North Division, Direct Grants..	16,592	36,386	24,880	11,799	14,932	18	245	24.05	170.90	53,498 09	1
2	North Division, By-laws.....	8,969	41,437	28,043	6,961	5,307	4	177	13.04	250.98	34,717 59	2
3	West Division, Direct Grants..	3,762	12,746	10,689	4,310	2,778	4	165	5.22	52.80	18,721 16	3
4	West Division, By-laws.....	3,215	30,894	10,439	323	2,167	4	122	.05	145.55	9,648 21	4
5	East Division, Direct Grants ..	7,271	37,207	30,404	3,446	11,504	14	296	12.66	234.00	59,588 13	5
6	East Division, By-laws.....	1,873	32,054	24,061	576	710	3	164	.....	182.32	20,891 60	6
7	Temiskaming, Direct Grants..	6,497	15,205	8,659	6,503	6,650	9	84	15.75	86.76	35,414 63	7
8	Temiskaming, By-laws	1,815	18,854	5,064	7,098	80,735	19	73	6.71	106.30	11,417 08	8
9	Over Expenditures.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	284 27	9
10	Miscellaneous (4 Divisions)....	.....	.....	.....	.....	.....	.....	.....	.....	.....	24,234 62	10
	GRAND TOTAL.....	49,994	224,783	115,239	41,016	124,783	75	1,326	77.48	1,229.51	268,415 38	

STATEMENTS

OF THE

ACCOUNTANT

OF

PUBLIC WORKS

Department of Public Works, Ontario,

Toronto, February 27th, 1919.

Hon. F. G. Macdiarmid,
Minister of Public Works and Highways.

Sir,—I have the honour to submit detailed statements of Capital Expenditure on Provincial Public Buildings, Public Works, Colonization and Mining Roads, Good Roads (Highway Improvement), Aid to Railways, etc., during the Fiscal Year which ended on the 31st of October, 1918. To these are added Statements, in a condensed form, of the Capital Expenditure thereon from the date of Confederation to the 31st October, 1917, the expenditure during the Fiscal Year 1917-18, and the Grand Total Expenditure from the 1st July, 1867, to the 31st October, 1918.

I have the honour to be, Sir,

Your obedient servant,

M. C. O'Donnell,
Accountant Public Works.

A statement of expenditure on Capital Account for Public Buildings, Public Works, Drainage, Colonization and Mining Roads, Good Roads (Highways Improvement Act), Aid to Railways, etc., for the year ending October 31st, 1918.

Name of Work.	—	Amount.
	$ c.	$ c.
PUBLIC BUILDINGS:		
Government House	.....	574 17
Parliament Buildings: Purchase, alterations, etc., No. 17 Queen's Park	1,259 95	
" " No. 17 Queen's Park Special Warrant	18,133 73	
" " Purchase, etc., 44-46 Richmond Street, West, Toronto, Special Warrant	40,951 13	
" " Iceplant, No. 5 Queen's Park Special Warrant	1,461 10	
		61,805 91
Osgoode Hall: General repairs and alterations	6,307 86	
" " Electric wiring and fixtures	151 02	
" " Painting interior and exterior	1,366 68	
" " Fittings for Central Vault	2,475 00	
" " Permanent lighting of grounds	218 37	
" " Alterations to building	2,168 17	
" " Erection of garage, Special Warrant	294 00	
		12,981 10
Hospital for Insane, Brockville	.....	2,478 95
" " Hamilton	31,392 23	
New boiler house, Special Warrant	12,549 02	
		43,941 25
" " Kingston	.....	3,301 28
" " London	12,058 14	
Reconstruction of buildings damaged by fire, Special Warrant	2,549 16	
		14,607 30
" " Mimico	.....	740 17
" " Penetanguishene	.....	4,794 54
" " Toronto, Special Warrant	44,992 19	
" " Toronto, Special War ant	24,931 41	
		69,923 60
" " Toronto, Whitby Branch	.....	229,447 68
" Feeble-minded, Orillia	90,059 58	
Kitchen, laundry, Special Warrant	3,538 45	
		93,598 03
" Epileptics, Woodstock	.....	1,063 11
Mercer Reformatory, Toronto, reconstruction, Special Warrant	.....	34,969 36
Normal and Model Schools, Toronto	.....	12,707 01
" " Ottawa	.....	1,970 01
Normal School, London	.....	1,136 71
" Hamilton	343 79	
Purchase 27 Lamereau St., Special Warrant	4,495 12	
		4,838 91
" Peterborough	.....	1,382 20
" Stratford	.....	361 19
" North Bay	.....	1,163 69
English-French Training School, Sandwich	.....	90 95
Ontario School for the Deaf, Belleville	.....	4,037 51
Ontario School for the Blind, Brantford	.....	4,796 68
Ontario Agricultural College, Guelph	6,638 88	
" " " Repairs to steam boiler, Special Warrant	1,019 17	
" " " Sewage disposal plant	48 87	
" " " Unpaid accounts, 1916-17	26 75	
		7,733 67
Horticultural Experimental Station Jordan Harbour	52,788 49	
" " " Purchase of land, Special Warrant	4,800 00	
		57,588 49
Ontario Veterinary College, Toronto	.....	2,432 15

Name of Work.	—	Amount.
PUBLIC BUILDINGS.—*Continued.*	$ c.	$ c.
Algoma District:		
Court House, Gaol and Registry Office Sault Ste. Marie ..	915 56	
Grant to Massie for lockup	500 00	
		1,415 56
Kenora District:		
Court House, Gaol and Registry Office, etc	.....	1,437 97
Manitoulin District:		
Court House, Gaol, Registry Office and Lockup	.....	342 77
Muskoka District:		
Court House, Gaol, Registry Office, Grounds, etc.	.....	1,651 91
Nipissing District:		
Court House, Gaol, Registry Office, Grounds, etc.	742 97	
" Unpaid Accounts, 1916-1917, Special Warrant ..	5 75	
		748 72
Parry Sound District:		
Court House, Gaol, Registry Office, Land Titles Office, Lock ups, Grounds, etc.	.....	2,412 88
Rainy River District:		
Court House, Gaol, Registry Office, Grounds, etc.	.....	788 06
Sudbury District:		
Court House, Gaol, Registry Office	1,991 40	
Industrial Farm, Burwash, Works, etc. Buildings, etc.	41,947 30	
Unpaid accounts, 1916-1917, Special Warrant	810 22	
		44,748 92
Temiskaming District:		
Court House, Registry Office, Grounds, etc.	.....	2,191 46
Thunder Bay District:		
Court House, Gaol, Registry Office, Port Arthur, Grounds, etc.	626 54	
Industrial Farm, Fort William	3,826 53	
		4,453 07
Miscellaneous:		
Fish Hatchery, Mount Pleasant, House for Superintendent..	.....	2,722 48
Compensation for workmen injured on Government Works..	.....	1,335 36
Insurance	.....	4,846 46
Public Buildings		743,561 24
PUBLIC WORKS:		
Anderson Creek Bridge	.....	1,486 39
Baysville Dam	.....	13,775 77
Bells Bridge, Bangor	.....	217 37
Beggsboro Bridge, 15th Sideline, McMurrick	.....	2,635 45
Blind River Lower Bridge	.....	2,622 01
Bagot Creek Bridge	.....	197 98
Barrie Bridge, Grant	.....	200 00
Benn's Creek Bridge	.....	1,041 34
Berridale Bridge, Con. 13, Armour	.....	1,448 92
Black Creek Bridge, Garden River Road	.....	342 33
Brissette Bridge, Korah	.....	1,568 33
Brule Creek Bridges, Con. 6, Conmee	.....	501 09
Buck Bridge, Con. 14, Stisted	.....	422 45
Burris Bridge, Con. 8 and 9, Sideline	.....	799 67
Byers Creek Breek Bridge, Grant	.....	198 80
Crozier Creek Bridge	.....	369 20
Capreol Junction Bridge, Vermillion	.....	156 00
Carpenter Bridges, Concession 5 and 6	.....	595 41
Cheddar Bridge, Cardiff	.....	356 50
Couderet Bridge, Sec. 6, Awenge	.....	1,923 57

Name of Work.	—	Amount.
PUBLIC WORKS.—*Continued.*	$ c.	$ c.
C. Wall Bridge, Prince		2,316 17
Constaw Creek Bridge, Grant		200 00
Dawson Road Bridge, Sunshine		385 07
Deer River Bridge, Wollaston		1,265 27
Deux River Bridge, Clara		1,790 52
Devlin Bridge, S., Sec. 4		849 94
Dutch Creek Bridge, Herschel		324 42
Equipment, instruments, machinery		3,496 19
East Pine Bridge, Sec. 28, Pattul'o		891 59
East Road Bridge, Spence		2,190 99
Finn Bridge, Waters		598 48
First Concession Bridge, Wicklow		311 69
Front Bridge, Massey		270 26
Griffith's Bridge, Madawaska River		6,702 37
Green's Creek Bridge, Sinclair		839 62
Gleason River Bridge, Oxendon		541 18
Hill's Bridge, 2nd Line, Prince		1,290 75
Hanmer Creek Bridge, West Townline		465 24
Holmes Bridge, Elzevir		394 39
Kenora District Bridges		2,758 72
Kabuska Creek Bridge		1,146 35
Kilworthy Bridge		1,444 22
Lavasse Creek Bridge, 13 Con., Ferris		1,197 46
Lambert's Bridge, Black River		2,465 35
Lockmasters Bridgetenders, etc., salaries		3,731 67
Lash Bridge, Front Road		3,015 11
LaValle Bridge, Con. 2, Burris		799 23
Le Clair Bridge, Black Donald Road		461 77
Lily Creek Bridges (2), Mayo		741 35
Little East Bridge, Chaffey-Perry Townline		186 74
Long Lake Bridge, McClure		397 70
Maintenance locks, dams, bridges, etc.		50,613 71
do Unpaid accounts, 1916-1917		595 46
McCarroll's Creek Bridge		1,245 77
Morrison's Bridge, Lot 24, Muskoka		475 64
Montgomery Bridge		1,584 93
Mud Creek Bridge		979 73
Manitoulin Bridges		1,276 27
Moore's Falls, Bridge		497 21
McNarr Bridge, Carp Creek, Prince		1,770 16
Morley Bridge, Sections 11 and 12		499 95
North Seguin Bridge, Nipissing Road		2,145 13
Old Man Creek Bridge, Croft		1,275 57
Outlet Creek Bridge		1,928 90
Oliver Bridge, Lot 1, Con. 7		108 43
Papineau Bridge, Peterson Road		391 61
Parr Bridge		673 22
Patton Road Bridges (2)		1,309 02
Pickerel Bridge, Bright		1,465 12
Pinewood Bridge		455 08
Pitch Creek Bridge, Marks		368 30
Portlock Bridge, Block L		2,941 12
Restoule River Bridge		3,251 38
Rubber Boots		42 00
Reid's Bridge, Limerick		287 60
Root River Bridge, Tarentorus		372 31
Rawdon Bridge, 5th Con., Huntingdon		489 41
Seguin Bridge, Christie		2,758 98
Stewart Bridge, Sec. 21, Korah		1,181 34
Sucker Creek Bridge, Humphrey		1,983 72
Surveys and Inspections		4,532 85
Schutt Bridge, Raglan		198 90

Name of Work.	—	Amount.
PUBLIC WORKS.—*Continued.*	$ c.	$ c.
Second Concession Bridge, Bonfield		481 60
Second Line Bridge, Plummer		671 58
Seventh Concession Bridge, Graham Creek		384 98
Seventeenth Concession, Graham Creek		1,372 76
Sideline Bridge, Con. 7, Chisholm		347 35
Smith Bridge, Carp Creek		1,921 94
Sheffield Bridge, Grant		300 00
Sproule and Ingram Bridges, Grant		500 00
South River Bridges, Joly-Laurier, Townline		794 39
Superintendent of Public Works, Salary		1,300 00
Tarbutt Bridge, Shewfeldt Creek		288 90
Temiskaming Bridges		14,889 11
Thirteenth Con. Bridge, Vespra		1,771 73
Temagami Bridge		766 83
Tudor and Cashel Bridges		401 10
Third Line Bridge, Orillia		1,356 45
Veuve Bridge, 2nd Line, Caldwell		2,285 50
Widdifield Bridges (2)		1,760 26
Wages and Expenses, Supervising Foremen		3,341 47
Worthington Bridge, Front Road		989 32
Willow Creek Bridge, 7th Line Vespra		1,624 97
Public Works, Bridges, etc.		199,577 45
DRAINAGE WORKS:		
Algoma District Road Drainage		2,398 54
East Simcoe Road Drainage		594 00
Fourth Concession Drain, Amabel		509 70
Horseshoe Creek Drain		397 50
Kenora District Road Drainage		100 00
Manitoulin Road Drainage		1,187 64
Muskoka District Road Drainage		1,790 99
Nipissing District Road Drainage		2,656 50
Parry Sound District Road Drainage		425 00
Sturgeon Falls Road Drainage		1,723 97
Sudbury District Road Drainage		2,081 25
Temiskaming District Road Drainage		2,305 89
Draining Rainy River Roads		3,968 49
Drainage Works		20,139 47
SUMMARY:		
Public Buildings		743,561 24
Public Works, Bridges, etc.	199,577 45	
Public Works, Drainage	20,139 47	219,716 92
Total		963,278 16
Colonization and Mining Roads		267,577 38
Good Roads (Highway Improvement)		83,606 95
Aid to Railways		139,112 54
Grand Total		1,453,575 03

ADDENDA	Expenditure 1st July, 1867, to 31st Oct., 1917	Expenditure Fiscal Year ending 31st Oct., 1918	Total Expenditure to 31st Oct., 1918
	$ c.	$ c.	$ c.
Public Buildings	24,012,827 66	743,561 24	24,756,388 90
Public Works, Bridges, Locks, dams, etc.	3,075,294 09	199,577 45	3,274,871 54
Public Works, Drainage	663,884 81	20,139 47	684,024 28
Colonization and Mining Roads	8,703,106 13	267,577 38	8,970,683 51
Good Roads (highways improvement)	2,508,560 73	83,606 95	2,592,167 68
Aid to Railways	9,737,177 73	139,112 54	9,876,290 27
NOTE:—			
Certificates issued to railways $10,515,892 45			
Cash paid direct to railways 2,337,982 42			
$12,853,874 87			
Certificates outstanding 2,977,584 60			
Actual cash expended 31st Oct., 1918 9,876,290 27			
Totals	48,700,851 15	1,453,575 03	50,154,426 18
Recapitulation:—			
Total Public Buildings	24,012,827 66	743,561 24	24,756,388 90
" Public Works and Drainage	3,739,178 90	219,716 92	3,958,895 82
" Colonization and Mining Roads	8,703,106 13	267,577 38	8,970,683 51
" Good Roads (Highways improvement)	2,508,560 73	83,606 95	2,592,167 68
" Aid to Railways	9,737,177 73	139,112 54	9,876,290 27
Grand Totals	48,700,851 15	1,453,575 03	50,154,426 18

Department of Public Works, Ontario,
Toronto, February, 1919.

M. C. O'DONNELL,
Accountant Public Works.

STATEMENT

OF

SECRETARY

AND

LAW CLERK.

STATEMENT No. 4.

Showing the several contracts and bonds entered into with His Majesty during the twelve months ending the 31st October, 1918, in connection with the Public Buildings and Works, subject to the control of the Public Works Department.

Date	Work	Subject of Contract	Contractors	Sureties	Amount
1918					$ c.
Jan. 8...	New Liskeard Stock Judging Pavilion.	Steam heating system ...	F. R. Gibson, Haileybury.	Arthur W. Gibson and Neil J. McAuley, of Haileybury.	2,400 00
Feb. 2...	Osgoode Hall, Toronto.....	Supply and installing steel fittings in new vault.	Office Specialty Mfg. Co., Limited, Toronto.		2,475 00
Feb. 13...	Parliament Buildings, Toronto.	Supply and installing steel filing cases in Public Works vault.	The Steel Equipment Co., Limited, Ottawa.		1,525 00
Feb. 14...	Vineland Experimental Station.	Plumbing for central heating and two cottages.	Purdy, Mansell, Limited, Toronto.		1,260 00
Feb. 14...	Whitby Hospital for Insane	Supply of doors for six cottages.	R. Laidlaw & Co., Toronto		2,250 00
Feb. 19...	Hamilton Hospital for Insane.	Supply and installing of plumbing material.	Purdy, Mansell, Limited, Toronto.		2,976 00
Feb. 21...	Orillia Hospital for Feeble Minded.	Structural steel beams ..	Hamilton Bridge Works Co., Limited.		5,608 00
Mar. 4...	Carr Township Rural School House.	Supply and erection of school building.	Jeffrey & Stevens, Contractors, North Bay.	United States Fidelity and Guaranty Co., Toronto.	3,408 00

Mar. 17...	Orillia Hospital for Feeble Minded.	Supply of triplex pump and motor.	The Canadian Fairbanks, Morse, Co. Ltd., Toronto	.....	.....		1,530 50
Apr. 17...	Vineland Experimental Station.	Steam heating in boiler house of Administration Building and Superintendent's residence.	Purdy, Mansell, Limited, Toronto.	Fred J. Lucas and Percy C. Mansell, Toronto.	.....		6,600 00
Apr. 20...	Orillia Hospital for Feeble Minded.	Supply and erection of steel tank and tower.	Canadian Des Moines Steel Co. Limited, Chatham, Ont.	.....	.....		10,000 00
May 8...	Whitby Hospital for Insane	Supply of electric transformers.	Maloney Electric Co. of Canada.	.....	.....		1,018 00
May 16...	Orillia Hospital for Feeble Minded.	Supply of laundry machinery.	Purdy, Mansell, Limited,	.....	.....		6,700 00
May 23...	Vineland Experimental Station.	Supply and erection of chimney and lightning rod.	Custodis Canadian Chimney Company, Limited, Toronto.	.....	.....		2,184 00
May 16...	Osgoode Hall, Normal School and Ontario Veterinary College, Toronto.	Supply of hard and soft coal, season 1918–19.	P. Burns Co., Limited, Toronto.	Geo. D. Macdonald and E. A. Burns, Toronto.	Grate coal	10 00	ton
					Egg and stove ..	10 00	"
					Soft coal	8 75	"
					Cannell	12 00	"
May 16...	Parliament Buildings and Government House, Toronto.	Supply of hard and soft coal, hard wood and pine wood, season 1918-19.	Standard Fuel Co. of Toronto, Limited.	Gerald Nash and Charles T. Logan, Toronto.	Egg coal.....	10 00	ton
					Pea coal.....	8 50	"
					Mine run & smokeless	8 25	"
					Screenings	8 00	"
					Cannell	11 50	"
					Hard wood	12 00	cord
					Pine wood.....	11 00	"

STATEMENT No. 4.—Continued.

Showing the several contracts and bonds entered into with His Majesty during the twelve months ending the 31st October, 1918, in connection with the Public Buildings and Works, subject to the control of the Public Works Department.

Date	Work	Subject of Contract	Contractors	Sureties	Amount	
1918						$ c.
May 16...	Ottawa Normal and Model Schools.	Supply of hard and soft coal, pine slabs, season 1918-19.	The Independent Coal Co., Ltd., Ottawa.	F. H. Belanger and Fred Slattary, Ottawa.	Egg coal.....	10 25 ton
					Soft coal	10 00 "
					Pine slabs.....	7 50cord
May 16...	Hamilton Normal School ..	Supply of hard coal and pine wood, season 1918-19.	Gillies-Guy, Ltd., Hamilton.	Bert Mitchel and H. W. Robinson, Hamilton.	Egg coal.....	9 50 ton
					Pine wood	10 25cord
May 16...	Peterborough Normal School	Supply of hard coal and pine slabs, season 1918-1919	H. B. Taylor & Son, Peterborough.	John F. Allen and E. B. Fowler, Peterborough.	Egg coal	11 00 ton
					Pine slabs.....	8 00cord
May 16...	Belleville School for the Deaf	Supply of hard and soft coal, season 1918-19	Downey Coal Co., Belleville.	.....	Egg coal.....	11 50 ton
					Stove coal.....	11 75 "
					Nut coal.....	11 75 "
					Best grade slack	7 60 "
May 27...	Brantford School for the Blind.	Supply of coal, season 1918-19.	D. Macdonald, Brantford.	.....	Soft coal	7 42 ton
					Youghiogheny coal	7 67 "
					Egg, nut and stove	10 00 "
July 11...	London Normal School.....	Supply of soft coal	A. Devincy, St. Marys ...	.....	3 cars Youghiogheny ¾ lump @	7 40 ton
July 11...	Stratford Normal School ..	Supply of soft coal	A. Devincy, St. Marys ...	.....	2 cars Youghiogheny ¾ lump @	7 40 ton

June 26...	Griffith Bridge, South Renfrew.	Steel superstructure for highway, trus span with railing.	Hamilton Bridge Works, Coy., Ltd. Hamilton.	.....	.....	2,723 00
June 26...	Veuve River Bridge, Township of Caldwell, Sturgeon Falls.	Steel superstructure, class B, Highway Bridge span	Standard Steel Construction, Co., Ltd., Hamilton	.....	.....	2,313 00
July 10...	Kapuskasing Bridge, Temiskaming.	Structural steel for one 80 ft. span and one 120 ft. span.	Canadian Bridge, Co., Ltd., Walkerville	.....	.....	12,600 00
Aug. 16...	Kemptville Stock Judging Hall.	Plumbing and steam heating system.	McKinley & Northwood, Ottawa.	William J. Irvine, George McLaurin, Ottawa.	.....	5,081 00
Aug. 19...	Toronto Office Building, 44-46 Richmond Street W.	All works in connection with alterations to building (except plumbing, heating, electrical lighting, steel and iron work.)	Thos. V. Gearing, Toronto	.....	10% on cost of labor and material	
Sep. 12 ...	Toronto Office Building, 44-46 Richmond Street W.	Supply and construction steam heating system.	Purdy, Mansell, Toronto.	Fred J. Lucas, and Alex. S. Purdy, Toronto.	.....	9,492 00
Sep. 23 ...	Casey Township Rural School, Temiskaming.	Supply and construction of building.	Jeffrey & Stevens, North Bay.	The United States Fidelity and Guaranty Co.	.....	3,925 00
Sept. 25 ..	Toronto Office Building, 44-46 Richmond Street W.	Supply and erection of iron stairway.	Canadian Ornamental Iron Co., Ltd., Toronto.	.....	.....	4,550 00
Sept. 26 ..	Orillia Hospital for Feeble Minded.	Supply and construction of cold storage plant.	Eureka Refrigerator Co., Ltd., Toronto.	.....	.....	4,500 00

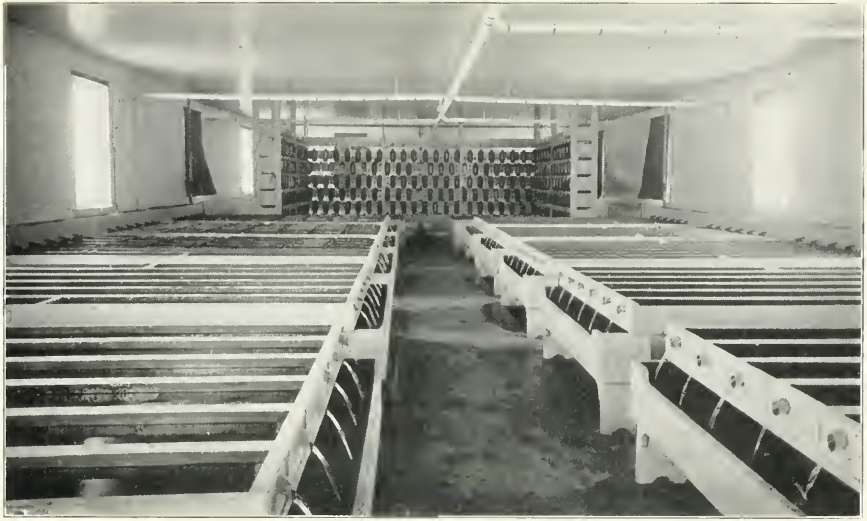
STATEMENT No. 4.—Concluded.

Showing the several contracts and bonds entered into with His Majesty during the twelve months ending the 31st October, 1918, in connection with the Public Buildings and Works, subject to the control of the Public Works Department.

Date	Work	Subject of Contract	Contractors	Sureties	Amount	
						$ c.
1917 Oct. 1 ...	North Bay Normal School .	Supply of soft coal	W. H. Cox Coal Co., Ltd., Toronto.		Smokeless soft coal mine run, f.o.b. North Bay @...	8 70 ton

Department of Public Works, Ontario,
Toronto, March, 1918.

H. F. McNAUGHTEN,
Secretary and Law Clerk Public Works Department, Ontario.



A portion of the interior of Provincial Hatchery at Fort Arthur. Erected in 1918.

Twelfth Annual Report

OF THE

GAME AND FISHERIES DEPARTMENT

1918

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO

TORONTO:
Printed and Published by A. T. WILGRESS, Printer to the King's Most Excellent Majesty
1919

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TORONTO

To His Honour Sir John Strathearn Hendrie, K.C.M.G., C.V.O., a Colonel in the Militia of Canada, etc., etc., etc.

Lieutenant-Governor of the Province of Ontario.

May It Please Your Honour:

I have the honour to submit herewith, for the information of Your Honour and the Legislative Assembly, the Twelfth Annual Report of the Department of Game and Fisheries of this Province.

I have the honour to be,

Your Honour's most obedient servant,

F. G. Macdiarmid,

Minister of Public Works and Highways.

Toronto, 20th March, 1919.

TWELFTH ANNUAL REPORT

OF THE

Department of Game and Fisheries of Ontario

To the Honourable F. G. Macdiarmid,

Minister of Public Works and Highways.

Sir,—I have the honour to submit the Twelfth Annual Report of the Department of Game and Fisheries, being for the fiscal year ending October 31st, 1918.

Enforcement of Laws and Regulations.

Every observer will admit that there is a better enforcement of the laws now than in earlier years and that the sentiment in favour of game and fish laws and their enforcement is steadily growing. The better the law is enforced the more it is respected by the public. The fines imposed and collected during the year, together with the proceeds from the sale of confiscations and other articles, amounted to $14,883.15. Licenses and permits were issued by this Department for privileges as provided for in the Act and there are two reasons why licenses are purchased by the public. The first is because a large number realize the importance of upholding the Department and protecting the game, fish and birds and, by so doing, the extermination of these resources will be prevented and a supply insured for the generations to come. Another class who buy licenses merely do so with the idea of avoiding prosecution and, in doing so, become interested to the extent that they purchase thereafter from the first motive. Therefore the enforcement of the Act is the most potent factor in the upbuilding of the Department of Game and Fisheries and the preservation of the country's resources placed under its care.

The Migratory Birds Convention Act referred to in my last year's report, and which deals with the whole of Canada, is becoming better understood by the public in general and, with the better acquaintance of its provisions by publicity, I believe it is being well received and will have beneficial results.

Game.

Plenty of moose and deer are reported in that part of the Province lying north and west of the French and Mattawa Rivers and generally satisfactory in the other parts of the Province which are inhabited by these animals. The number of non-resident deer licenses issued for this year shows an increase of 33 over the previous year, while the number of resident deer licenses issued shows a decrease of 2,975. The number of moose licenses issued shows an increase of 516 over that of the previous year. The decrease in the number of the resident deer licenses issued was no doubt caused mainly from the epidemic of influenza which prevailed

throughout the Province just at this season of the year but, from the fact that the fee for deer hunting licenses was increased to $3.00 this year, there has been a gross gain in revenue in deer and moose licenses amounting to $8,034.00.

Partridge.—The benefit of the existing close season has been shown in quite a marked degree in many sections of the northern part of the Province from the encouraging reports received of the increase in these game birds.

Ducks.—The reports received from various parts of the Province are satisfactory in regard to the number of ducks obtained for the past season.

Quail.—I regret to report that the quail appear to be very scarce throughout the Province.

Pheasants.—From reports received pheasants are still quite scarce in the Province.

Fur-Bearing Animals.

The fur market has been exceptionally good throughout the past year and the prices obtained have been much above normal and, owing to these conditions, it has attracted many trappers and dealers to participate in the lucrative returns obtained from the sale of pelts of every description.

Beaver are still very plentiful and large catches have been reported.

Otter continue to be scarce.

Martin and Fisher from reports received show an inclination to decrease.

Muskrat are still plentiful in many parts of the Province.

I would strongly recommend the setting apart of a suitable area of considerable extent for the establishment of a game sanctuary which, in my opinion, could be found in some part of the middle west of the Province and which would tend to assure in a marked degree the continuity of an ample supply of all classes of game and fur-bearing animals which will be so necessary and valuable to those who come after the present generation.

Wolf.—Many reports have reached the Department bearing testimony to the fact that great inroads have been made into the deer and other game by these predatory animals in widely separated districts and the havoc caused appears to demand that some prompt and definite methods should be taken to overcome this great waste and I would, therefore, strongly recommend that a substantial increase be added to the bounty being paid at present which would have very beneficial results and encourage the trapper in exterminating the wolf.

Fish.

The commercial fishing, taking the Povince as a whole, has shown an increase in catch over the previous year. The returns as presented by the license holders show a total catch for the year of 1916 of 36,205,360 pounds, while the 1917 catch as reported totals 42,834,551 pounds, being an increase of 6,629,191 pounds. The number of commercial licenses issued in 1916 were 2,251 and 2,220 licenses were issued for the year of 1917, being a decrease in the number of commercial fishing licenses of 31.

I am publishing herewith the report of the Sales Branch as submitted and which deals with the activities of this Department in supplying the various municipalities with Government fish at a fixed price.

Hatcheries.

In accordance with my recommendation of last year I am pleased to report that a hatchery 38′ x 76′ has been built in Current River Park, Port Arthur, under the supervision of Mr. George H. Rapsey, Superintendent of this Department, and to whom I desire to give due credit. The building is well constructed and fully equipped for the hatching of both speckled and lake trout, whitefish, herring and pickerel with ideal conditions as to the source and supply of pure water and the hatchery, as a whole, is considered by the authorities to be as modern and efficient as any hatchery in the Dominion, having a capacity for 75,000,000 whitefish and 15,000,000 trout. The completion of this hatchery will place four hatcheries under the operation of this Department for the season of 1919.

I would recommend the erection of ponds for rearing speckled trout fry at Mount Pleasant and Port Arthur as better results can be obtained by rearing the fry until they attain the size of fingerlings and, when all danger of spring floods is over, a supply of natural food is more favourable.

I regret to report that, on acount of the unfavourable weather conditions of last spring, the bass hatch proved a failure for the first time in ten years. Similar failures have been reported from other hatcheries outside of the Province and was due to the fact that the temperature of the water as late as July 6th, which is well beyond the normal period for the small mouth bass to hatch, did not register higher than 57 degrees F., a temperature too low for the bass to spawn in breeding ponds. The result has been that, instead of the bass preparing their nests and hatching as nature intended, they simply scattered their eggs which were a total loss. The water must have a temperature of at least 64 degrees F. before the small mouth bass will spawn properly.

The fall collection of spawn did not reach my expectations and, no doubt, the collection was greatly affected by adverse weather conditions and, in the north, on account of the prevailing epidemic of influenza. For the first time the Department has been successful in collecting 170,000 brook trout spawn for the Mount Pleasant Hatchery and 1,500,000 speckled trout spawn from the famous Nepigon stock for the Port Arthur Hatchery. The output of the new hatchery at Normandale consisted of 1,400,000 pickerel dore, 15,500,000 whitefish and 38,000,000 herring fry and were all planted in the waters of Lake Erie. Adding to these figures the hatch of 2,000,000 pickerel dore fry at the Port Carling Hatchery, which were placed in the Muskoka waters, makes a grand total of 56,900,000 as a total distribution by the Province. This is the first year that the Department undertook the propagation of fish other than game species and this distribution may be considered as a very creditable showing for the initial year.

Acknowledgment.

I wish to publicly express through you my appreciation of the hearty co-operation given by all of the Railway and Transportation Companies who have materially assisted in the inspection and enforcement of the Act by the various officers of this Department and in the matter of handling the Government fish car and distribution of fry wherever requested.

My thanks also extends to employees of the Department who have rendered faithful services and to other Departments of the Provincial Government for their assistance and co-operation and I refer particularly to the officers of the Provincial Police and the Officials and staff of the Forestry Branch.

I cannot close without reference to the loss of one of the staff in the person of Mr. W. S. Masson, a competent and efficient employee who fulfilled his highest duty by offering his services and life to his country in 1915 and who, I regret to say, paid the supreme sacrifice in the fall of 1918 on the battlefields of France.

The statistics mentioned in the report will be found in detail in statements published elsewhere herein.

All of which is respectfully submitted. I am

Your obedient servant,

D. McDONALD,
Deputy Minister of Game and Fisheries.

Department of Game and Fisheries, Sales Branch, Toronto.

TORONTO, February 19, 1919.

D. McDONALD, ESQ.,
Deputy Minister of Game and Fisheries, Buildings.

DEAR SIR.—I beg to submit herewith report of the Sales Branch, Department of Game and Fisheries, for the year ending October 31st, 1918.

The unusual economic conditions resulting from the European War, which had created a world shortage of food, required prompt action upon the part of Governments. The demand made upon the food producing parts of the Empire for conservation and substitution quickly reached the Province of Ontario. Beef and bacon were required in increasing quantities by our brave soldiers; substitutes should be provided for the people at home.

Appreciating the position, and with characteristic promptness, the Government of the Province of Ontario launched a policy which had for its object the securing of fish from the waters of the Province, and placing same at fixed prices on the tables of the consumers. This plan embraced production, distribution, and Government control. In order that existing trade should not be greatly interfered with, and that increased production might be secured, several inland lakes, some of them being virgin waters, some having had fishing restrictions for a number of years, were fished under contract, Lakes Nipigon and Nipissing being the largest of these; the Government distributing the entire catch from these Lakes.

The first fish secured by the Government under this policy were distributed September, 1917, and a wonderful demand was at once assured, the demand being so great that it became apparent that a portion of the catch of the licensed fishermen was required to meet it. An authority stated in the year of 1911 that 95 per cent. of all fresh water fish procured in the Province had been exported to our neighbours to the south. It appeared reasonable to the Government that only a portion of the catch of the licensed fishermen should be retained for distribution in the Province. To this end a clause was placed in the license of each fisherman operating for 1918, requiring them to deliver to the Sales Branch any amount which might be demanded, such amount not to exceed 20 per cent. of the total catch. The fishermen were thus free to sell 80 per cent. of their catch in the best market obtainable.

The price to be paid the fishermen by the Government was based upon the average price of the previous five years. The fishermen with few exceptions gave loyal support to the Government measure, thus assisting in no little degree to make same a success. The fish which were distributed by the Government, taken from the fishermen, were secured from the Rainy River District, Lake Superior, Georgian Bay and North Channel, Lakes Huron, Erie and Ontario.

During the first year over three million pounds of fish have been handled by the Sales Branch. These fish have been sold by nearly six hundred fish dealers, and have been distributed in over two hundred municipalities throughout the Province, the distribution reaching nearly every important centre in the Province. It is admitted that the Government policy has assisted in reducing the high cost of living, an average of at least five cents per pound on all fish distributed being saved for the consumer. This in itself would amount to at least $150,000.

Government advertising has made the eating of fish more popular. The Government arranged during the past year for demonstrations covering the preparing and cooking of fish; exhibitions have also been made of live fish, while moving pictures have been on exhibition showing the various phases of the fishing industry.

This wide advertising will undoubtedly have a marked effect upon the sale of fish throughout the Province in future years, benefiting the fisherman and the consumer, and giving the people of the Province an idea of the value of this great natural resource.

Yours truly,

S. L. Squire,

Manager.

Statement of Revenue received from Game and Fisheries during the year ended October 31st, 1918.

GAME.

Rondeau Park	$2,551 31	
Royalty Coupons (Beaver and Otter)	27,308 60	
Trappers' Licenses	24,002 32	
Non-Resident Hunting Licenses	7,961 63	
Resident Deer Licenses	31,698 82	
Resident Moose Licenses	8,566 15	
Fur Dealers' Licenses	5,837 75	
Game Dealers' Licenses	623 00	
Hotel and Restaurant Liceuses	346 00	
Cold Storage Licenses	126 00	
Guides' Licenses	930 00	
Fines	6,978 88	
Sales (Fur, etc.)	4,230 92	
		$121,161 38

FISHERIES.

Fishing Licenses	$111,014 68	
Fishery Royalties	8,759 05	
Angling Permits	14,063 22	
Fines	2,480 58	
Sales (fish, twine, etc.)	1,192 71	
		$137,510 24

GOVERNMENT FISH.

Sales of fish, etc.	$235,028 15	
		$235,028 15
Total		$493,699 77

WATERS STOCKED WITH QUANTITIES AND KINDS OF FISH PLANTED IN EACH.

1918.

Waters Stocked and Location.	Species.	Quantities.
Rideau Lake, Lanark and Leeds Counties	Lake Trout	60,000
Sydenham Lake, Frontenac County	Lake Trout	20,000
Loughboro Lake, " "	Lake Trout	20,000
Eagle Lake, " "	Lake Trout	30,000
White Lake, " "	Lake Trout	30,000
Charleston Lake, Leeds County	Lake Trout	50,000
Clear Lake, Renfrew County	Lake Trout	50,000
Westlemkoon Lake, Hastings County	Lake Trout	40,000
Lake Simcoe, North Shore, Simcoe County	Lake Trout	140,000
Fairy Lake, Muskoka District	Lake Trout	30,000
Mary Lake, " "	Lake Trout	30,000
Peninsular Lake, " "	Lake Trout	40,000
Lake of Bays, " "	Lake Trout	50,000
Long Lake, Parry Sound District	Lake Trout	10,000
Fairbanks Lake, Sudbury District	Lake Trout	40,000
Smoke Lake, Algonquin Park	Lake Trout	35,000
Cache Lake, " "	Lake Trout	65,000
Lake Nepigon, Thunder Bay District	Lake Trout	150,000
Kashabowie Lake, " "	Lake Trout	50,000
Long Lake, Kenora District	Lake Trout	25,000
Little Long Lake, " "	Lake Trout	25,000
Streams at St. Williams, Norfolk County	Brown Trout	15,000
Stream at Hespeler, Waterloo County	Brown Trout	15,000
Pond at Glencoe, Middlesex County	Brown Trout	10,000
Whiteman's Creek, Brant County	Brown Trout	4,000
Streams in vicinity of Waterloo, County Waterloo	Brook Trout	60,000
Streams in vicinity of Simcoe, Norfolk County	Brook Trout	50,000
Valens Creek, Wentworth County	Brook Trout	20,000
Holstein Creek, Grey County	Brook Trout	20,000
Spring Creek, Mt. Forest, Grey County	Brook Trout	10,000
Streams in vicinity of Markdale, Grey County	Brook Trout	50,000
Needway Creek, Middlesex County	Brook Trout	20,000
Bronte Creek, Halton County	Brook Trout	50,000
Saugeen River, Durham County	Brook Trout	20,000
Rocky Saugeen, " "	Brook Trout	40,000
Grand Lake, Algonquin Park	Brook Trout	10,000
Streams in vicinity of Havelock, Peterborough County	Brook Trout	50,000
Streams at Caledon Lake, Peel County	Brook Trout	2,500
Lake Simcoe, Brough's Creek and Narrows at Atherley, Simcoe County	Rainbow Trout	20,000
Gun Lake at Minaki Station, Kenora District	Bass (Parent)	131
Muskoka Lakes, Muskoka District	Pickerel	2,000,000
Lake Erie	Pickerel	1,400,000
Lake Erie	Whitefish	15,500,000
Lake Erie	Herring	38,000,000
	Total	58,356,631

Total Lake Trout	990,000
" Brown Trout	44,000
" Brook Trout	402,500
" Rainbow Trout	20,000
" Black Bass (Parent)	131
" Pickerel	3,400,000
" Whitefish	15,500,000
" Herring	38,000,000
Total	58,356,631

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, the industry during the year 1917, in the Public

Number.	District.	Fishing material. Tugs. No.	Tugs. Tonnage.	Tugs. Value.	Tugs. Men.	Gasoline Launches. No.	Gasoline Launches. Value.	Gasoline Launches. Men.	Sail or Row Boats. No.	Sail or Row Boats. Value.	Sail or Row Boats. Men.	Gill-Nets. Yards.	Gill-Nets. Value.
	Kenora and Rainy River.			$			$			$			$
1	Lake of the Woods	5	89	8,500	13	38	14,145	75	31	1,225	25	46,350	7,580
2	Long, Big Garson, Oneman and Orow Lakes					5	1,325	10	4	170	4	4,300	540
3	Shoal, Eagle, Deer and Dryberry Lakes					9	3,350	18	4	140	4	19,300	3,140
4	Raleigh, Sandy, Basket, Indian and Orang Outang Lakes					3	800	3	1	20	2	8,000	1,090
5	Malachi, Bussard, Obabicon, Lawrence and Sturgeon Lakes					7	1,910	12	1	20	2	13,000	1,640
6	Lac Suele and Minnitakie Lakes					3	950	7	2	200	4	10,000	930
7	Lake Nepigon	1	20	2,000	6	3	1,150	8	3	120	4	21,895	2,172
8	Rainy Lake					17	7,500	19	12	340	12	19,983	2,500
9	Clearwater, Tuttle, Trout Perch and Namaken, Lakes					3	950	6	2	70	3	12,500	2 270
	Totals	6	109	10,500	19	88	32,380	158	60	2,305	60	155,328	21,862

Return of the kinds, quantities and values of fish caught during the

Number.	District.	Herring, salted.	Herring, fresh.	Whitefish, salted.	Whitefish, fresh.	Trout, salted.	Trout, fresh.	Pike.	Pickerel or Dore.
	Kenora and Rainy River.	brls.	lbs.	brls.	lbs.	brls.	lbs.	lbs.	lbs.
1	Lake of the Woods		167,920	1	161,707		7,265	199,896	496,777
2	Long, Big, Garson, Oneman and Crow Lakes				7,988		8,230	2,060	
3	Shoal, Eagle, Deer and Dryberry Lakes				175,487		27,236	47,150	122,730
4	Raleigh, Sandy, Basket, Indian and Orang Outang Lakes				23,295		931	2,855	4,836
5	Malachi Bussard, Obabicon, Lawrence and Sturgeon Lakes				18,681	½	13,299	13,751	18,100
6	Lac Suele and Minnitakie Lakes			20	118,137		1,500	31,811	70,178
7	Lake Nepigon				39,103		40,123		5,092
8	Rainy Lake				102,568			155,159	186,060
9	Clearwater, Tuttle, Trout, Perch and Namaken Lakes			2	33,752	2	12,570	34,677	57,970
	Totals		167,920	23	680,717	2½	111,804	787,359	961,653
	Values		$ c. 8,396 00	$ c. 230 00	$ c. 68,071 70	$ c. 25 00	$ c. 11,180 40	$ c. 62,988 72	$ c. 96,165 30

FISHERIES.

Quantity and value of all fishing materials and other fixtures employed in the fishing Waters of Kenora and Rainy River.

Fishing material.													Other fixtures used in fishing.			
Seines.			Pound nets.		Hoop nets.		Dip or roll nets.		Night lines.		Spears.		Freezers and Ice Houses.		Piers and Wharves.	
No.	Yards.	Value.	No.	Value.	No.	Value.	No.	Value.	No. Hooks.	Value.	No.	Value.	No.	Value.	No.	Value.
		$		$		$		$		$		$		$		$
....	.....	.....	32	10,060	28	2,700	....	.....	.....	.....	....	.....	19	8,730	21	4,565
....	.....	.....	....	.....	6	230	....	.....	.....	.....	....	.....	2	275	3	125
....	.....	.....	....	.....	....	.....	....	.....	.....	.....	....	.....	6	1,150	5	450
....	.....	.....	....	.....	....	.....	....	.....	.....	.....	....	.....	6	450	....	.....
....	.....	.....	....	.....	....	.....	....	.....	.....	.....	....	.....	4	1,200	1	50
....	.....	.....	....	.....	....	.....	....	.....	.....	.....	....	.....	6	825	5	600
....	.....	.....	22	4,950	....	.....	....	.....	.....	.....	....	.....	7	1,450	4	900
....	.....	.....	7	1,500	....	.....	....	.....	.....	.....	....	.....	....	.....	....	.....
....	.....	.....	61	17,050	34	2,930	....	.....	.....	.....	....	.....	50	14,080	39	6,690

year 1917, in the Public Waters of Kenora and Rainy River Districts.

Sturgeon.	Eels.	Perch.	Tullibee.	Catfish.	Carp.	Mixed and coarse fish.	Caviare.	Sturgeon Bladders.	Value.
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	$ c.
9,926	.....	.....	56,825	.....	143	394,544	50	.....	139,720 94
5,820	.....	.....	.....	8,000	.....	10,000	563	.....	4,287 60
.....	.....	.....	6,130	.....	.....	14,822	.....	.....	37,426 20
.....	.....	.....	5,000	.....	.....	1,000	.....	.....	3,484 60
....	.....	.....	4,105	.....	.....	4,125	.....	.....	6,565 63
.....	.....	.....	4,734	.....	.....	18,000	.....	.....	22,910 42
.....	.....	.....	.....	.....	.....	30,225	.....	.....	9,934 05
2,650	.....	679	88,052	.....	30	105,602	117	677	52,793 99
2,564	.....	.....	9,599	.....	.....	14,320	60	.....	14,974 90
20,460	.....	679	174,445	8,000	173	592,638	790	677	292,098 33
$ c. 3,069 00	$ c.	$ c. 33 95	$ c. 10,466 70	$ c. 640 00	$ c. 3 46	$ c. 29,631 90	$ c. 790 60	$ c. 406 20	$ c. 292,098 33

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, fishing industry during the year 1917.

Number.	District.	Fishing Material.											
		Tugs.				Gasolene Launches			Sail or Row Boats.			Gill-Nets.	
		No.	Tonnage.	Value.	Men.	No.	Value.	Men	No.	Value.	Men.	Yards.	Value.
	Lake Superior.			$			$			$			$
1	Thunder Bay	5	92	17,700	41	1	300	1	6	540	9	146,150	9,199
2	Rossport	5	75	12,500	17	2	700	4	9	700	14	116,500	8,400
3	Port Arthur, Port Coldwell and Lac Des Milles Lac	3	86	9,700	16	2	550	6	1	75	2	107,000	7,060
4	Jackfish Black Bay, Big Trout Bay, Jarvis Bay and Oisean Bay								8	455	8	16,700	918
5	Shanagash Island, Wilson Island, Silver Islet, Kashabowie Lake, and Evelyn Island					1	250	1	3	325	4	11,400	1,210
6	Jean Pierre, McKellars, Pine, Newash Points and Muskeg Lake	1	25	3,000	4	1	400	1	4	235	9	56,700	6,700
7	Brodier Island, Arrow Lake, McLeans Point, Carpenters Beach and Whitefish Lake								5	450	6	9,600	591
8	Pays Platt River, Ronnd Lake, Root Point, Welcome Island and Long Lake					1	100	2	6	565	8	15,000	1,910
9	Magnet, Bignell, Gratto, Nuttalls Points and Salter Island					1	350	2	4	350	5	14,000	840
10	Kama Station, Point Edward, Moffatts' Straits	1	10	1,000	3	1	300	1	2	125	2	18,000	1,300
11	Kaministegues River, Steel River and Pilot Harbonr	1	15	2,000	6				2	135	4	2,000	50
12	Michipicoten Island, Mamainse Point	1	46	9,500	14	5	2,600	13	3	110	6	131,700	12,040
13	Goulais Bay, Gros Cap					6	2,650	13	12	545	22	84,600	13,500
14	Batchawana Bay, Gargantan and Richardson's Harbonr	2	71	12,500	19	2	1,200	4	9	390	16	159,300	13,582
15	Parisian Island, Sandy Island and Rudderhead Point					3	2,500	13	1	35	2	3,000	220
	Totals	19	420	67,900	120	26	11,900	61	75	5,035	117	881,650	77,520

Return of the kinds, quantities and values of fish caught

Number.	District	Herring, salted.	Herring, fresh.	Whitefish, salted	Whitefish, fresh.	Trout, salted.	Trout, fresh.	Pike.	Pickerel, or Dore.
	Lake Superior.	brls.	lbs	brls.	lbs.	brls.	lbs.	lbs.	lbs.
1	Thunder Bay	850	1,068,200	5	44,099	12	167,485	235	2,705
2	Rossport	1,016½	240,000	.....	5,925	4	193,587	.....	19,200
3	Port Arthur, Port Coldwell and Lac Des Milles Lac	.....	513,165	.....	29,215	16½	272,061	5,595	24,935
4	Jackfish, Black Bay, Big Trout Bay, Jarvis Bay and Oisean Bay	179½	2,065	3	13,120	34½	29,735	2,758	665
5	Shaganash Island, Wilson Island, Silver Islet, Kashabowie Lake and Evelyn Island	.....	19,000	.....	2,300	501	46,045	2,000	450
6	Jean Pierre, McKellars, Pine, Newash Points and Muskeg Lakes	220	499,000	.....	33,140	4	70,390	5,400	.....
7	Brodier Island, Arrow Lake, McLeans Point, Carpenters Beach and Whitefish Lake	51	.....	2	6,622	8½	17,849	45	.....
8	Page Platt River, Ronnd Lake Root Point, Welcome Island and Long Lake	113	25,000	.....	7,800	4½	27,040	50	2,210
9	Magnet, Bignell, Gratto, Nuttalls Points and Salter Island	.....	.....	.....	1,930	5	27,370	10	170
10	Kama Station, Point Edward, Moffatts, Straits	204	61,000	.....	17,655	4	72,425	20	10,490
11	Kaministegnea River, Steel River and Pilot Harbour	.....	12,000	.....	18,083	6	85,320	44	5
12	Michipicoten Island, Mamainse Point	1	.....	.....	42,299	116½	279,652	400	.....
13	Goulais Bay, Gros Cap	20	9,750	16	109,714	18	122,271	65	222
14	Batchawana Bay, Gargantan and Richardson's Harbour	.....	.....	.....	50,532	8½	216,473	300	.....
15	Parisian Island, Sandy Island and Rudderhead Point	.....	2,018	.....	63,993	.....	33,254	884	9,018
	Totals	2,655	2,448,201	26	446,457	743	1,660,957	17,606	70,070
	Values	$ c. 26,550 00	$ c. 122,160 05	$ c. 260 00	$ c. 44,645 70	$ c. 7,430 00	$ c. 166,095 70	$ c. 1,424 48	$ c. 7,007 00

FISHERIES.

the quantity and value of all fishing materials and other fixtures employed in the in the Public Waters of Lake Superior

Fishing Material.													Other fixtures used in fishing.			
Seines			Pound Nets.		Hoop Nets.		Dip or Roll Nets.		Night Lines		Spears.		Freezers and Ice Houses.		Piers and Wharves.	
No.	Yards.	Value.	No.	Value	No.	Value.	No.	Value.	No. Hoops.	Value.	No.	Value.	No.	Value.	No.	Value.
				$										$		$
....	.....	.....	10	2,200	....	.....	....	.....	.....	.....	....	.....	2	1,030	3	275
....	.....	.....	9	1,900	....	.....	....	.....	.....	.....	....	.....	....	.....	....	.....
....	.....	.....	6	1,500	....	.....	....	.....	.....	.....	....	.....	3	2,600	2	850
....	.....	.....	4	800	....	.....	....	.....	.....	.....	....	.....	1	50	....	.....
....	.....	.....	1	200	....	.....	....	.....	.....	.....	....	.....	3	155	....	.....
....	.....	.....	1	250	....	.....	....	.....	.....	.....	....	.....	1	100	....	.....
....	.....	.....	....	.....	....	.....	....	.....	.....	.....	....	.....	2	300	1	10
....	.....	.....	....	.....	....	.....	....	.....	.....	.....	....	.....	1	100	....	.....
....	.....	.....	....	.....	....	.....	....	.....	.....	.....	....	.....	....	.....	....	.....
....	.....	.....	7	1,100	....	.....	....	.....	.....	.....	....	.....	1	600	1	200
....	.....	.....	7	3,300	....	.....	....	.....	.....	.....	....	.....	2	300	1	500
....	.....	.....	....	.....	....	.....	....	.....	.....	.....	....	.....	1	200	1	500
....	.....	.....	....	.....	....	.....	....	.....	.....	.....	....	.....	2	100	1	75
....	.....	.....	....	.....	....	.....	....	.....	.....	.....	....	.....	....	.....	....	.....
....	.....	.....	12	7,000	....	.....	....	.....	.....	.....	....	.....	6	4,600	2	1,250
....	.....	.....	57	18,250	....	.....	....	.....	.....	.....	....	.....	25	10,135	12	3,660

during the year 1917, in the Public Waters of Lake Superior.

Sturgeon.	Eels.	Perch.	Tullibee.	Catfish.	Carp.	Mixed and coarse fish.	Caviare	Sturgeon bladders.	Value.
lbs.	lbs	lbs	lbs.	lbs.	lbs.	lbs.	lbs.	No.	$ c.
.....	.....	.....	50	400	1,232	.....	.....	.....	83,655 80
.....	.....	.....	.....	.....	.....	.....	.....	.....	44,076 20
50	.....	.....	.....	.....	.....	.....	.....	.....	58,902 45
140	.....	.....	.....	.....	400	.....	.....	.....	6,887 04
.....	.....	.....	.....	.....	.....	1,000	.....	.....	11,049 50
.....	.....	.....	.....	.....	300	.....	.....	.....	37,981 00
.....	.....	.....	.....	.....	.....	5,250	.....	.....	3,328 20
.....	.....	.....	25	.....	.....	.....	.....	.....	6,136 00
.....	.....	.....	.....	.....	.....	.....	.....	.....	2,997 80
25	.....	.....	.....	.....	.....	.....	.....	100	15,252 35
797	.....	.....	.....	.....	.....	300	.....	.....	11,138 87
.....	.....	.....	.....	.....	.....	146,866	.....	.....	40,745 40
.....	.....	.....	.....	.....	.....	583	.....	.....	24,282 55
.....	.....	.....	.....	.....	.....	164,895	.....	.....	35,054 25
4,070	.....	.....	.....	.....	.....	3,158	22	.....	11,538 52
5,082	.....	.....	.....	75	700	232,774	22	100	393,075 93
$ c. 762 30		$ c.	$ c.	$ c. 6 00	14 00	$ c. 16,638 70	22 00	60 00	$ c. 393 075 93

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, fishing industry during the year 1917, in the

Number.	District.	Fishing material.											
		Tugs.				Gasoline Launches.			Sail or Row Boats.			Gill-Nets.	
		No.	Tonnage.	Value.	Men.	No.	Value.	Men.	No.	Value.	Men.	Yards.	Value
	Lake Huron, North Channel.			$			$			$			$
1	Thessalon								8	385	15	28,000	1,905
2	Spanish, St. Joseph's Island, Sprague and Cedar Island					5	2,400	10	11	475	17	27,250	1,855
3	Nesterville, Algoma Mills, Blind River and John's Island					2	700	5	3	90	4	9,300	620
4	Bruce Mines, Birch Island and Lake Lousin								6	200	8	8,880	700
5	Little Laloche Lake, Mississauga River and Patrick Point					2	1,200	5	4	225	2	2,000	100
6	Buswell's Point, Flat Point and Little Detroit	3	92	11,900	12	2	800	2	6	410		3,000	150
7	Kagawong, South Bay Mouth and Sqnaw Island	8	173	20,000	42	1	550	3	5	435	7	135,500	27,960
8	Killarney and Duck Islands	1	24	7,000	6	8	4,350	18	6	410	9	116,500	16,297
9	Fitzwilliam Island, Little Current and Meldrum Bay	5	132	30,000	27	2	450	4	3	250	6	289,500	11,800
10	Strawberry, Bedford, Rabbit, Cochrane Islands and Providence Bay	1	10	2,000	5	2	1,000	5	6	470	10	50,000	3,380
11	Shegnindah and Gore Bays, Berry, Round Islands and Wabino Channel	1	6	500	3	2	400	4	8	325	16	27,500	1,570
12	Ten Mile Point, Centre, Hamilton Islands and Manitowaning Bay					5	3,650	11					
13	Wekwemikoog Bay, Big Burnt Island, Laloche Island, Grandine Point					4	2,350	11					
	Totals	19	467	80,400	95	35	17,800	78	66	3,745	94	997,430	66,337

Return of the kinds, quantities and values of fish caught during

Number	District.	Herring, salted.	Herring, fresh.	Whitefish, salted.	Whitefish, fresh.	Trout, salted.	Trout, fresh.	Pike.	Pickerel, or Dore.
	Lake Huron, North Channel.	brls.	lbs.	brls.	lbs.	brls.	lbs.	lbs.	lbs.
1	Thessalon		3,100		15,140	3	36,296	9,958	2,073
2	Spanish, St. Joseph's Island, Sprague and Cedar Island	5	8,210		44,337	5	26,694	21,792	14,871
3	Neaterville, Algoma Mills, Blind River and John's Island		5,000		1,873		5,395	7,652	1,695
4	Bruce Minea, Birch Island, and Lake Lonsin	5	4,650	200	2,080	49	1,424	9,049	430
5	Little Laloche Lake, Mississauga River and Patrick Point		1,150		11,037		17,431	3,712	11,124
6	Buswell's Point, Flat Point and Little Detroit		16,029		8,793		20,252	5,902	101,097
7	Kagawong, South Bay Mouth, and Sqnaw Island	8	400		149,248	8	114,091	9,385	1,515
8	Killarney and Duck Islands			7	135,368		160,377	13,156	10,999
9	Fitzwilliam Island, Little Current and Meldrum Bay			4	84,480	21	316,029	8,100	299
10	Strawberry, Bedford, Rabbit, Cockburn Islands and Providence Bay				30,141		118,924	3,232	17,280
11	Shegnindah and Gore Bays, Berry, Round Islands and Wabino Channel				21,703		8,891	9,299	2,865
12	Ten Mile Point, Centre, Hamilton Islands, and Manitowaning Bay				30,713		31,525	7,782	48,526
13	Wekwemikong Bay, Big Burnt Island, Laloche Island, Grandine Point		25		59 113		15,515	3,169	48,147
	Totals	18	38,564	211	594,035	66	1,475,754	112,488	260,321
	Values	$ c. 180 00	$ c. 1,928 20	$ c. 2,110 00	$ c. 59,403 50	$ c. 660 00	$ c. 147,575 40	$ c. 8,999 04	$ c. 26,032 10

FISHERIES

the quantity and value of all fishing materials and other fixtures employed in the Public Waters of Lake Huron, North Channel.

Fishing material.													Other fixtures used in fishing.			
Seines.			Pound nets.		Hoop nets.		Dip or roll nets.		Night lines.		Spears.		Freezers and Ice Houses.		Piers and Wharves.	
No.	Yards.	Value.	No.	Value.	No.	Value.	No.	Value.	No. Hooks.	Value.	No.	Value.	No.	Value.	No.	Value.
		$		$		$		$		$			2	$ 300	1	$ 200
			10	2,300									6	750	3	350
													2	200		
													1	50		
			14	5,300									3	900	2	1,300
			23	6,500									5	2,100	4	2,700
			9	6,300									3	710	2	500
			13	14,000									1	500	1	500
			8	3,000									2	200	2	2,000
			14	7,500									2	350	1	100
			7	2,800									1	250		
			20	6,800									3	925	1	900
			14	7,400									2	650	3	600
			132	61,900									33	7,885	23	9,150

the year 1917, in the Public Waters of Lake Huron, North Channel.

Sturgeon.	Eels.	Perch.	Tullibee.	Catfish.	Carp.	Mixed and Coarse fish.	Caviare.	Sturgeon Bladders.	Value.
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	$ c.
		3,234	100			5,026			6,742 54
508		12,159				39,823			13,519 36
		370				5,088			1 971 36
31		5,200				6,836	14		4,611 17
3,258						58,764			7,710 56
4,977						48,843			17,476 51
		2,442	54,637			11,513			61,212 17
216		123	60,000	100		1,820			65,558 43
53						16,050			41,819 25
1,012		500				19,294			18,031 56
386		262				63,923			7,341 97
556		315				76,478	39		15,661 01
1,306		126		22	68	7,851			13,115 14
12,103		21,731	111,737	122	68	361,909	53		274,804 33
$ c. 1,815 45		$ c. 1,236 55	$ c. 6,704 22	$ c. 9 76	$ c. 1 36	$ c. 18,095 45	$ c. 53 00	$ c.	$ c. 274,804 33

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, the industry during the year 1917,

Number.	District.	Fishing material.											
		Tugs.				Gasoline Launches.			Sail or Row Boats			Gill-Nets.	
		No.	Tonnage.	Value.	Men.	No.	Value.	Men.	No.	Value.	Men.	Yards.	Value.
	Georgian Bay.			$			$			$			$
1	Byng Inlet	1	27	5 000	5	3	175	8	2	35	3	68,000	2,750
2	Parry Sound	4	61	19,000	17	7	2,250	8	4	280	6	258,300	23,050
3	Waubaushene	.....	.....	.....	.....	.....	.....	.....	8	740	12	12,000	1,280
4	Penetanguishene	.....	.....	.....	.....	2	700	4	6	220	10	15,000	1,335
5	Collingwood	3	61	12,100	16	9	2,135	13	4	365	6	211,100	11,675
6	Meaford to Owen Sound Bay	6	163	25,500	26	29	12,595	61	20	1,600	22	258,760	16,240
7	Colpoy's Bay to Tobermory	2	45	6,000	11	10	6,750	19	6	185	12	76,514	6,364
	Totals	16	357	67,600	75	60	24,605	113	50	3,425	71	899,374	62,694

Return of the kinds, quantities and values of fish caught

Number.	District.	Herring, salted.	Herring, fresh	Whitefish, salted.	Whitefish, fresh.	Trout, salted.	Trout, fresh	Pike.	Pickerel or Dore.
	Georgian Bay.	brls.	lbs.	brls.	lbs.	brls	lbs.	lbs.	lbs.
1	Byng Inlet	.....	.....	41	127,070	.....	32,400	18,424	38,153
2	Parry Sound	.....	.....	3	234,782	.....	208,841	5,070	8,120
3	Waubaushene	10	3,300	5	5,875	2	.....	16,160	8,200
4	Penetanguishene	26	1,900	15	16,586	36	19,310	800	125
5	Collingwood	2	34,500	.....	14,745	100	123,116	41,233	.....
6	Meaford to Owen Sound Bay	.....	25,660	402	11,400	274	581,756	.....	.....
7	Colpoy's Bay to Tobermory	.....	25,000	.....	2,317	212	265,455	.....	.....
	Totals	38	90,360	466	415,185	624	1,230,878	81,687	54,598
	Value	$ c. 380 00	$ c. 4,518 00	$ c. 4,660 00	$ c. 41,518 50	$ c. 6,240 00	$ c. 123,087 80	$ c. 6,534 96	$ c. 5,459 80

FISHERIES.

quantity and value of all fishing materials and other fixtures employed in the fishing in the Public Waters of the Georgian Bay.

Fishing material.														Other fixtures used in fishing.			
Seines.			Pound Nets.		Hoop nets.		Dip or Roll Nets.		Night Lines.		Spears			Freezers and Ice Houses.		Piers and Wharves.	
No.	Yards.	Value.	No.	Value.	No.	Value.	No.	Value.	No. Hooks.	Value.	No.	Value.		No.	Value.	No.	Value.
		$		$		$		$		$		$			$		$
....	.....	.....	8	8,050	....	.....	....	.....	.....	.....	....	.....		.....	.....	1	500
....	.....	.....	....	.....	....	.....	....	.....	.....	.....	....	.....		5	2,275	6	1,150
1	50	50	....	.....	25	345	....	.....	.....	.....	....	.....		1	500	1	100
....	.....	.....	....	.....	....	.....	....	.....	.....	.....	....	.....		3	100	2	250
....	.....	.....	....	.....	....	.....	....	.....	.....	.....	....	.....		.....	.....	.....	.....
....	.....	.....	....	.....	....	.....	....	.....	12,600	1,105	....	.....		10	1,225	6	1,025
....	.....	.....	....	.....	....	.....	....	.....	4,800	390	....	.....		2	550	3	275
1	50	50	8	8,050	25	345	....	.....	17,400	1,495	....	.....		21	4,650	21	3,300

during the year 1917 in the Public Waters of the Georgian Bay.

Sturgeon.	Eels.	Perch.	Tullibee.	Catfish.	Carp.	Mixed and coarse fish.	Caviare.	Sturgeon Bladders	Value.
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	$ c.
1,120	.....	.....	.....	.....	4,039	7,200	20	.....	22,275 00
.....	.....	.....	.....	.....	.....	.....	.....	.....	45,610 90
.....	.....	2,015	.....	6,940	7,829	16,055	.....	.....	4,590 58
.....	.....	200	500	.....	.....	.....	.....	.....	4,571 10
2,100	.....	550	.....	.....	.....	7,250	390	.....	20,924 74
.....	.....	150	16,500	.....	.....	1 250	.....	.....	68,718 60
19	.....	.....	159,828	.....	.....	1,055	.....	.....	39,792 48
3,239	.....	2,915	176,828	6,940	11,868	32,810	410	.....	206,483 40
$ c.		$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
465 85	.....	145 75	10,609 68	555 20	237 36	1,640 50	410 00	.....	206,483 40

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, fishing industry during the year 1917,

Number.	District.	Fishing material.											
		Tugs.				Gasoline Launches.			Sail or Row Boats.			Gill-Nets.	
		No.	Tonnage.	Value.	Men.	No.	Value.	Men.	No.	Value.	Men.	Yards.	Value.
	Lake Huron (Proper).			$			$			$			$
1	Tobermory to Southampton	9	203	30,100	50	9	4,075	22	12	1,460	21	402,100	31,095
2	Southampton to Pine Point	1	50	3,000	6	2	900	6	1	50	2	88,000	4,350
3	County of Huron	2	36	11,000	5	14	5,900	23	6	650	20	168,340	16,520
4	County of Lambton (including River St. Clair)	.....	.....	.....	.....	22	8,675	59	28	833	36	.....	.....
	Totals	12	289	44,100	61	57	19,550	120	47	2,993	79	719,040	51,965

Returns of the kinds, quantities and values of fish caught

Number.	District.	Herring, salted.	Herring, fresh.	Whitefish, salted.	Whitefish, fresh.	Trout, salted.	Trout, fresh.	Pike.	Pickerel, or Dore.
	Lake Huron (Proper).	brls.	lbs.	brls.	lbs.	brls.	lbs.	lbs.	lbs.
1	Tobermory to Southampton	316	37,768	32	16,506	328	532,967	185	408
2	Southampton to Pine Point	.....	7,290	50	200	.....	47,500	150	.....
3	County of Huron	150	137,293	.....	9,488	6	191,767	50	11,042
4	County of Lambton (including River St. Clair)	.....	194,464	.....	33,941	.....	10,794	1,352	174,473
	Totals	466	376,815	82	60,135	334	783,078	1,737	185,923
	Values	$ c. 4,660 00	$ c. 18,840 75	$ c. 820 00	$ c. 6,013 50	$ c. 3,340 00	$ c. 78,307 80	$ c. 138 96	$ c. 18,592 30

FISHERIES.

the quantity and value of all fishing materials and other fixtures employed in the in the Public Waters of Lake Huron (Proper).

Fishing material.												Other fixtures used in fishing.			
Seines.			Pound nets.		Hoop nets.		Dip or Roll Nets.		Night Lines.		Spears.	Freezers and Ice Houses.		Piers and Wharves.	
No.	Yards.	Value.	No.	Value.	No.	Value.	No.	Value.	No. Hooks.	Value.	No. Value.	No.	Value.	No.	Value.
		$		$		$		$		$	$		$		$
....	.....	.....	2	400	....	.....	....	.....	.....	.....	.....	1	2,800	1	200
....	.....	.....	....	.....	....	.....	....	.....	.....	.....	.....	1	300	....	.....
....	.....	.....	9	1,400	....	.....	....	.....	.....	.....	.....	13	1,025	4	85
5	335	420	56	20,550	....	.....	7	68	.....	.....	.....	2	300	1	50
5	335	420	67	23,350	....	.....	7	68	.....	.....	.....	20	4,425	6	335

during the year 1917, in the Public Waters of Lake Huron (Proper).

Sturgeon.	Eels.	Perch.	Tullibee.	Catfish.	Carp.	Mixed and coarse fish.	Caviare.	Sturgeon bladders.	Value.
lbs.	lbs.	lbs.	lbs.	lbs	lbs.	lbs.	lbs.	No.	$ c.
10	.....	25,600	422,361	.....	.....	2,500	.....	.....	90,395 46
.....	.....	2,550	97,000	.....	500	.....	.....	.....	11,609 00
7,782	.....	81,737	11,333	.....	.....	57,868	50	.....	37,535 88
10,614	.....	9,530	.....	556	4,058	83,288	873	127	39,060 00
18,406	.....	119,417	530,594	556	4,558	123,656	923	127	178,598 34
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
2,760 00	.....	5,970 85	31,835 64	44 48	91 16	6,182 80	923 00	70 30	178,598 34

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, fishing industry during the year 1917,

Number.	District.	Fishing material.											
		Tugs.				Gasoline Launches.			Sail or Row Boats.			Gill-Nets.	
		No.	Tonnage.	Value.	Men.	No.	Value.	Men.	No.	Value.	Men.	Yards.	Value.
	Lake St. Clair.						$			$			$
1	Kent County (including River Thames)	.....	.....	.....	.....	30	9,100	50	33	2,130	26	.....	.....
2	Essex County	.....	.....	.....	.....	25	6,250	39	48	2,075	82	.....	.....
3	Detroit River	.....	.....	.....	.....	5	2,700	26	32	801	64	.....	.....
	Totals	.....	.....	.....	.....	60	18,050	115	113	5,006	172	.....	.....

Return of the kinds, quantities and values of fish caught

Number.	District.	Herring, salted.	Herring, fresh.	Whitefish, salted.	Whitefish, fresh.	Trout, salted.	Trout, fresh.	Pike.	Pickerel or Dore.
	Lake St. Clair.	brls.	lbs.	brls.	lbs.	brls.	lbs.	lbs.	lbs.
1	Kent County (including River Thames)	.....	.....	.....	.....	.....	.....	37,798	26,221
2	Essex County	.....	.....	.....	19,250	.....	.....	11,225	34,158
3	Detroit River	.....	.....	.....	11,200	.....	.....	9,000	4,010
	Totals	.....	.....	.....	30,450	.....	.....	58,023	64,389
	Values	.....	$ c.	.....	$ c. 3,045 00	.....	.....	$ c. 4,641 84	$ c. 6,438 90

FISHERIES.

the quantity and value of all fishing materials and other fixtures employed in the
in the Public Waters of Lake St. Clair.

Fishing material.													Other fixtures used in fishing.			
Seines.			Pound nets.		Hoop nets.		Dip or Roll Nets.		Night Lines.		Spears.		Freezers and Ice Houses.		Piers and Wharves.	
No.	Yards.	Value.	No.	Value.	No.	Value.	No.	Value.	No. Hooks.	Value.	No.	Value.	No.	Value.	No.	Value.
		$		$		$		$		$		$		$		$
17	4,300	2,165	....	.....	106	8,060	2	10	700	7	.....	.....	22	4,450	11	1,325
30	4,550	1,840	10	3,450	....	.....	....	.....	1,200	120	....	.....	14	6,050	....	.....
26	4,099	2,593	....	.....	....	.....	....	.....	.....	.....	....	.....	....	.....	6	4,175
70	12,949	6,598	10	3,450	106	8,060	2	10	1,900	127	....	.....	36	10,500	17	5,500

during the year 1917, in the Public Waters of Lake St. Clair.

Sturgeon.	Eels.	Perch.	Tullibee.	Catfish.	Carp.	Mixed and coarse fish.	Caviare.	Sturgeon bladders.	Value.
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	$ c.
500	.....	89,865	.....	41,837	58,000	383,296	....	.....	33,885 95
13,850	.....	39,450	.....	21,075	14,450	271,900	280	.....	26,158 80
.....	.....	2,450	.....	550	30,500	30,495	.....	.....	4,542 25
14,350	.....	131,765	.....	63,462	102,950	685,691	280	.....	64,567
$ c. 2,152 50	$ c.	$ c. 6,588 25	$ c.	$ c. 5,076 96	$ c. 2,059 00	$ c. 34,284 55	$ c. 280 00	.....	$ c. 64,567

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, the fishing industry during the year 1917.

Number.	District.	Fishing material.											
		Tugs				Gasoline Launches.			Sail or Row Boats.			Gill-Nets.	
		No.	Tonnage.	Value	Men.	No.	Value	Men.	No.	Value.	Men.	Yards.	Value.
	Lake Erie.			$			$			$			$
1	Pelee Island	2	91	20,000	13	11	7,600	55	20	690	12	75,950	12,950
2	Essex County	.....	.....	.....	.....	38	25,500	70	30	730	6	23,000	2,100
3	Kent County, West	2	49	15,000	15	81	19,000	67	13	1,000	3	130,000	11,000
4	Kent County, East	.....	.....	.....	.....	26	11,525	74	16	1,215	10	1,200	350
5	Elgin County, West	2	89	15,000	17	15	7,450	56	5	240	1	86,000	9,350
6	Elgin County, East	19	600	130,000	98	7	4,500	30	.....	.....	.....	576,750	174,900
7	Norfolk County	13	370	96,200	81	27	12,100	70	76	3,055	190	289,000	23,330
8	Haldimand County (to and including the Grand River)	8	202	36,400	32	21	11,050	52	24	770	25	165,100	15,785
9	Port Maitland to Port Colborne	.....	.....	.....	.....	1	900	3	.....	.....	.....	6,000	750
10	Port Colborne to Niagara Falls	.....	.....	.....	.....	.....	.....	.....	18	656.50	19	17,200	831
	Totals	46	1,401	312,600	256	176	99,625	457	202	8,356.50	266	1,370,200	251,916

Return of the kinds, quantities and values of fish caught

Number.	District.	Herring, salted.	Herring, fresh.	Whitefish, salted.	Whitefish fresh.	Trout, salted.	Trout, fresh.	Pike.	Pickerel, or Dore.
	Lake Erie.	brls.	lbs.	brls.	lbs.	brls.	lbs.	lbs.	lbs.
1	Pelee Island	.....	626,264	.....	157,827	.....	.....	950	16,429
2	Essex County	.....	775,649	.....	366,491	.....	.....	27,296	87,961
3	Kent County, West	.....	2,523,124	.....	45,066	.....	.....	.....	33,712
4	Kent County, East	.....	1,598,514	.....	32,561	.....	.....	.....	30,247
5	Elgin County, West	.....	1,362,149	.....	53,212	.....	.....	712	19,457
6	Elgin County, East	.....	3,404,750	.....	190,354	.....	.....	22,985	2,085
7	Norfolk County	.....	2,213,882	.....	187,117	.....	1,257	85,588	27,226
8	Haldimand County (to and including the Grand River)	.....	1,642,729	.....	205,750	.....	1,087	3,678	4,546
9	Port Maitland to Port Colborne	.....	9,508	.....	1,443	.....	.....	373	.....
10	Port Colborne to Niagara Falls	.....	1,500	.....	.....	.....	.....	100	15,796
	Totals	.....	14,157,839	.....	1,239,521	.....	2,344	141,682	237,459
	Values	.....	$ c. 707,891 95	.....	$ c. 123,952 10	.....	$ c. 234 40	$ c. 11,334 56	$ c. 22,745 90

FISHERIES.

quantity and value of all fishing materials and other fixtures employed in the in the Public Waters of Lake Erie.

Fishing material.													Other fixtures used in fishing.			
Seines.			Pound Nets.		Hoop Nets.		Dip or Roll Nets.		Night Lines.		Spears.		Freezers and Ice Houses.		Piers and Wharves.	
No.	Yards.	Value.	No.	Value.	No.	Value.	No.	Value.	No. Hooks.	Value.	No.	Value.	No.	Value.	No.	Value.
		$		$		$		$		$		$		$		$
4	1,500	350	29	6,000	....	.....	....	.....	.....	.....	.....	.....	4	8,300	....	.....
6	1,434	410	180	85,250	2	25	2	4	.....	.....	.....	.....	21	16,250	6	750
2	76	300	128	79,200	....	.....	....	.....	.....	.....	.....	.....	25	38,700	12	4,525
5	2,000	850	75	48,500	....	.....	....	.....	.....	.....	.....	.....	18	9,350	14	2,115
....	.....	.....	79	41,500	....	.....	....	.....	.....	.....	.....	.....	18	11,640	8	4,950
....	.....	.....	42	21,200	....	.....	4	23	3,500	76	....	.....	9	13,050	6	8,400
44	17,150	10,010	76	31,700	23	456.50	....	.....	700	20	.....	.....	21	13,730	11	2,000
5	395	210	66	28,500	....	.....	15	140	.....	.....	.....	.....	17	6,510	5	1,200
....	.....	.....	....	.....	....	.....	....	.....	.....	.....	.....	.....	....	.....	....	.....
1	50	17.25	....	.....	....	.....	....	.....	1,220	75.75	....	.....	....	.....	....	.....
67	22,604	12,147.25	675	341,850	25	481.50	21	167	8,420	171.75	.....	.....	133	117,750	63	23,940

during the year 1917, in the Public Waters of Lake Erie.

Sturgeon.	Eels.	Perch.	Tullibee.	Catfish.	Carp.	Mixed and coarse fish.	Caviare.	Sturgeon Bladders.	Pickerel (Blue).	Value.
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	lbs.	$ c.
6,340	.....	62,397	.....	1,598	51,893	31,088	717	.....	24,315	58,749 25
8,903	.....	197,092	.....	2,224	168,285	237,053	255	.....	95,684	122,821 01
1,098	.....	203,865	.....	76	8,139	93,923	35	.....	109,962	160,232 96
1,209	.....	146,386	.....	367	80,110	32,124	41½	.....	63,186	101,705 01
942	.....	147,910	.....	959	214	25,095	29	.....	48,386	87,669 96
1,329	1,098	121,683	.....	19,426	289	36,122	544	.....	47,982	206,527 14
7,028	17,848	109,384	12,225	11,712	335,153	128,936	778½	.....	53,922	161,677 44
12,922	.....	37,266	.....	345	33,766	70,525	487	.....	122,639	123,800 66
.....	.....	230	.....	.....	.....	830	.....	.....	.....	662 54
7,392	.....	5,900	.....	.....	13,636	15,090	262	24	.....	4,370 02
47,163	18,936	995,413	12,225	36,707	666,773	668,986	3,149	24	565,476	1,034,305 99
$ c. 7,074 15	1,136 16	$ c. 49,770 65	$ c. 733 50	$ c. 2,202 56	$ c. 13,335 46	$ c. 33,449 30	$ c. 3,149 00	$ c. 14 40	$ c. 56,547 60	$ c. 1,034,305 99

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, fishing industry during the year 1917

Number.	District.	Fishing material.											
		Tugs.				Gasoline Launches.			Sail or Row Boats.			Gill-Nets.	
		No.	Tonnage.	Value.	Men.	No.	Value.	Men.	No.	Value.	Men.	Yards.	Value.
	Lake Ontario.			$			$			$			$
1	Lincoln County	1	29	12,000	4	28	10,350	53	9	245	11	134,670	11,526
2	Welland County	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
3	Wentworth County	....	.....	.....	.....	12	10,000	36	10	515	16	5,780	7,560
4	Halton County	....	.....	.....	.....	23	7,425	46	....	.....	.....	119,500	7,300
5	Peel County	....	.....	.....	.....	4	1,600	5	....	.....	.....	17,000	1,900
6	York County	....	.....	.....	.....	7	2,350	16	19	665	31	18,500	3,335
7	Ontario County	....	.....	.....	.....	4	1,025	8	4	230	9	15,300	1,589
8	Durham County	1	20	6,000	5	3	1,150	4	3	145	5	51,000	5,690
9	Northumberland County	....	.....	.....	.....	12	3,500	24	29	1,230	46	58,400	4,200
10	Prince Edward County	....	.....	.....	.....	50	13,005	89	94	3,208	150	396,860	25,085
11	Bay of Quinte (Proper)	....	.....	.....	.....	4	425	9	120	7,934	209	79,600	7,840
12	Bay of Quinte (Eastern Channel)	....	.....	.....	.....	9	2,350	18	24	753	32	66,200	3,408
13	Wolfe Island and Vicinity	....	.....	.....	.....	12	2,700	25	30	699	39	39,000	1,450
	Totals	2	49	18,000	9	168	55,780	323	342	12,615	551	902,810	80,882

Return of the kinds, quantities and values of fish caught

Number.	District.	Herring, salted.	Herring, fresh.	Whitefish salted.	Whitefish, fresh.	Trout, salted.	Trout, fresh.	Pike.	Pickerel or Dore.
	Lake Ontario.	brls.	lbs.	brls.	lbs.	brls.	lbs.	lbs.	lbs.
1	Lincoln County	.....	598,573	.....	91,864	.....	8,530	160	21,480
2	Welland County	.....	.....	.....	.....	.....	.....	340	210
3	Wentworth County	.....	150,200	.....	68,500	.....	3,800	.....	780
4	Halton County	.....	306,650	.....	37,200	.....	15,800	.....	.....
5	Peel County	.....	10,868	.....	14,000	.....	23,381	.....	.....
6	York County	.....	1,650	.....	28,100	.....	2,375	.....	20
7	Ontario County	.....	1,060	.....	47,502	.....	3,120	691	.....
8	Durham County	.....	5,280	5	54,987	.....	9,732	200	.....
9	Northumberland County	10	41,882	.....	87,467	.....	53,471	67,503	.....
10	Prince Edward County	21½	174,307	200	463,590	10	275,037	23,701	.....
11	Bay of Quinte (Proper)	6	600,596	3	155,100	.....	1,950	162,083	23,778
12	Bay of Quinte (Eastern Channel)	2	38,220	1	106,625	¾	51,545	2,880	5,842
13	Wolfe Island and Vicinity	1½	900	1	5,310	13½	16,050	22,819	1,550
	Totals	41	1,939,186	210	1,110,445	24	463,924	280,377	53,660
	Values	$ c. 410 00	$ c. 96,509 30	$ c. 2,100 00	$ c. 114,044 50	$ c. 240 00	$ c. 46,392 40	$ c. 22,430 16	$ c. 5,366 00

FISHERIES.

the quantity and value of all fishing materials and other fixtures employed in the in the Public Waters of Lake Ontario.

Fishing material.												Other fixtures used in fishing.			
Seines.			Pound nets.		Hoop nets.		Dip or Roll nets.		Night Lines.		Spears.	Freezers and Ice Houses.		Piers and Wharves.	
No.	Yards	Value.	No.	Value.	No.	Value.	No.	Value.	No. Hooks.	Value.	No.	Value.	No.	Value.	No.	Value.
2	163	$ 135	....	$	....	$	....	$	600	$ 2,150	....	$	4	$ c. 1,100 00	1	$ 100
8	880	413	....	....	....	....	....	....	....	....	125	375	*1,402	2,300 50	....	....
1	200	75	....	....	....	....	....	....	....	....	....	....	23	2,370 00	....	....
....	....	....	....	....	....	....	....	....	....	....	....	....	2	250 00	....	....
11	2,059	905	....	....	....	....	....	....	....	....	....	....	....	....	....	....
3	170	83	....	....	....	....	....	....	....	....	....	....	1	50 00	....	....
....	....	....	....	....	....	....	....	....	....	....	....	....	1	25 00	2	250
....	....	....	....	....	73	2,490	....	....	....	....	....	....	10	510 00	1	50
2	175	70	....	....	125	3,555 50	....	....	1,350	107	....	....	6	1,274 00	....	....
....	....	....	....	....	374	6,006	....	....	....	....	....	....	....	....	5	117
1	30	7	....	....	8	70	....	....	1,300	25 50	....	....	....	....	....	....
8	160	223	....	....	81	2,050	....	....	2,600	56	....	....	5	575 00	5	775
36	3,676	1,911	....	....	661	14,171 50	9	43	5,850	210	125	375	*1,454	8,404 50	14	1,292

* 1,400 of these are spearing houses, value $1,700 50.

during the year 1917, in the Public Waters of Lake Ontario.

Sturgeon.	Eels.	Perch.	Tullibee.	Catfish.	Carp.	Mixed and coarse fish.	Caviare.	Sturgeon Bladders.	Pickerel (Blue)	Value.
lbs. 2,141	lbs. 390	lbs. 2,580	lbs.	lbs. 1,200	lbs. 50	lbs. 30,920	lbs. 63	No.	lbs.	$ c. 44,305 40
....	....	25	....	15	985	....	....	....	....	70 35
....	....	789	....	....	57,301	28,210	....	....	....	17,413 59
....	....	....	....	....	1,000	3,000	....	....	....	20,802 50
....	....	....	....	....	....	3,000	....	....	....	4,421 80
....	....	50	....	....	250,000	5,795	....	....	....	8,425 25
....	....	....	....	....	1,343	3,750	....	....	....	5,384 84
....	....	....	....	....	980	12,431	....	....	....	7,449 95
....	7,530	17,388	....	38,414	3,900	90,950	....	....	....	28,707 96
....	26,343	29,317	....	35,179	47,958	154,881	....	....	....	101,353 09
....	72,356	144,120	....	124,595	21,532	358,801	....	....	....	101,024 89
....	2,700	2,220	....	1,700	400	1,800	....	....	....	19,109 60
120	16,715	17,043	....	24,345	2,800	24,176	....	....	....	9,398 97
2,261	126,031	213,623	....	225,348	391,249	717,714	63	....	....	367,876 22
$ c. 339 15	$ c. 7,562 04	$ c. 10,681 15	$ c.	$ c. 18,027 84	$ c. 7,824 98	$ c. 35,885 70	$ c. 63 00	$ c.	$ c.	$ c. 367,876 22

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats fishing industry during the year 1917,

Number.	District.	Fishing material. Tugs. No.	Tugs. Tonnage.	Tugs. Value.	Tugs. Men.	Gasoline Launches. No.	Gasoline Launches. Value.	Gasoline Launches. Men.	Sail or Row Boats. No.	Sail or Row Boats. Value.	Sail or Row Boats. Men.	Gill Nets. Yards.	Gill Nets. Value.
	Inland Waters.			$		$			$				$ c.
1	Frontenac County					3	700	3	32	820	38		
2	Lanark and Leeds Counties					13	5,200	23	67	2,749	87		
3	Russell, Grenville, Prescott, Peterboro and Stormont Counties					4	2,250	7	21	435	22	1,200	50
4	Lake Simcoe					5	3,300	7	14	320	14		
5	Timiskaming and Nipissing Districts					7	3,100	18	19	1,120	16	24,600	2,775
	Totals					32	14,550	58	153	5,444	177	25,800	2,825

Return of the kinds, quantities and values of fish caught

Number	District.	Herring, salted.	Herring, fresh.	Whitefish, salted.	Whitefish, fresh.	Trout, salted.	Trout, fresh.	Pike.	Pickerel or Dore.
	Inland Waters.	brls.	lbs.	brls.	lbs.	brls.	lbs.	lbs.	lbs.
1	Frontenac County							15,382	
2	Lanark and Leeds Counties							16,315	
3	Russell, Grenville, Prescott, Peterboro and Stormont Counties							2,150	2,100
4	Lake Simcoe		294		10,115		14,050		1,313
5	Timiskaming and Nipissing Districts	1	9,212	1	27,061		2,195	42,364	75,360
	Totals	1	9,506	1	37,176		16,245	76,211	78,773
	Values	$ c. 10 00	$ c. 475 30	$ c. 10 00	$ c. 3,717 60		$ c. 1,624 50	$ c. 6,096 88	$ c. 7,877 30

FISHERIES.

the quantity and value of all fishing materials and other fixtures employed in the in the Public Waters of Inland Waters.

Fishing material.													Other fixtures used in fishing.			
Seines.			Pound nets.		Hoop nets.		Dip or Roll Nets.		Night Lines.		Spears.		Freezers and Ice Houses.		Piers and Wharves.	
No.	Yards.	Value.	No.	Value.	No.	Value.	No.	Value.	No. Hooks.	Value.	No.	Value.	No.	Value.	No.	Value.
		$		$		$ c.		$		$ c.		$		$		$
5	45	80	....	.....	75	2,160	....	.....	400	600 00	....	.....	....	.....	....	.....
2	40	80	....	.....	250	5,855	....	.....	3,300	357 00	....	.....	....	.....	....	.....
1	15	12	....	.....	18	352	19	55	5,100	130 60	....	.....	5	70	....	.....
5	2,000	1,390	....	.....	....	.....	4	20	7,900	130 00	122	391 25	2	1,240	5	402
....	.....	.....	19	1,375	3	90	....	.....	.....	.....	....	.....	5	1,120	5	740
13	2,100	1,482 80	19	1,375	346	8,457	23	75	13,300	1,217 60	122	391 25	12	2,430	8	1,142

during the year 1917, in the Public Waters of Inland Waters.

Sturgeon.	Eels.	Perch.	Tullibee.	Catfish.	Carp.	Mixed and coarse fish.	Caviare.	Sturgeon Bladders.	Value.
lbs.	lbs.	lbs	lbs.	lbs.	lbs.	lbs.	lbs.	No.	$ c.
.....	3,855	3,670	100	28,105	725	69,124	.....	.....	7,370 46
2,530	11,535	13,927	6,800	64,678	900	91,572	.....	700	13,851 99
6,900	5,575	4,000	.....	5,550	1,450	77,290	116	.....	6,405 00
.....	.....	5,682	.....	.....	238,107	34,107	.....	.....	9,314 09
.....	50	1,247	1,180	2,500	.....	60,115	.....	.....	17,673 22
9,430	24,015	28,526	8,080	100,833	241,182	332,208	116	700	54,614 76
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
1,414 50	1,440 90	1,426 30	484 80	8,066 61	4,823 64	16,610 40	116 00	420 00	54,614 76

ONTARIO

Recapitulation of the number of fishermen, tonnage and value of tugs, vessels and boats. industry during

Number	District.	Fishing material.											
		Tugs.				Gasoline Launches.			Sail or Row Boats.			Gill-Nets.	
		No.	Tonnage.	Value.	Men.	No.	Value.	Men.	No.	Value.	Men.	Yards.	Value.
				$			$			$ c.			$ c.
1	Kenora & Rainy River Dists.	6	109	10,500	19	88	32,380	158	60	2,305 00	60	155,223	21,862 00
2	Lake Superior	19	420	67,900	120	26	11,900	61	75	5,035 00	117	881,650	77,530 00
3	Lake Huron (North Channel)	19	407	80,400	95	35	17,800	78	66	3,745 00	94	997,430	66,337 00
4	Georgian Bay	16	357	67 600	75	60	24,605	113	50	3,425 00	71	899,374	62,694 00
5	Lake Huron (Proper)	12	289	44,100	61	57	19,550	120	47	2,993 00	79	719,040	51,965 00
6	Lake St. Clair, etc.					60	18,050	115	113	5,006 00	172		
7	Lake Erie	46	1,401	312,600	256	176	99,625	457	202	8,356 50	266	1,370,200	251,916 00
8	Lake Ontario	2	49	18,000	9	168	55,780	323	342	12,615 00	551	902,810	80,882 00
9	Inland Waters					32	14,550	58	153	5,444 00	177	25,800	2,825 00
	Totals	120	3,032	601,100	635	702	294,240	1,483	1108	48,924 50	1,587	5,951,537	616,001 00

Recapitulation of the kinds, quantities and values

Number	District.	Herring, salted.	Herring, fresh.	Whitefish, salted.	Whitefish, fresh.	Trout, salted.	Trout, fresh.	Pike.	Pickerel or Dore.
		brls.	lbs.	brls.	lbs.	brls.	lbs.	lbs.	lbs.
1	Kenora and Rainy River Districts		167,920	23	680,717	2¾	111,804	787,359	961,653
2	Lake Superior	2,655	2,443,201	26	446,457	743	1,660,957	17,806	70,070
3	Lake Huron (North Channel)	18	38,564	211	594,035	66	1,475,754	112,488	260,321
4	Georgian Bay	38	90,360	466	415,185	624	1,230,878	81,687	54,598
5	Lake Huron (Proper)	466	376,815	82	60,136	334	783,078	1,737	185,923
6	Lake St. Clair, etc.				30,450			58,023	64,389
7	Lake Erie		14,157,839		1,239,521		2,344	141,682	227,459
8	Lake Ontario	41	1,930,186	210	1,140,445	24	463,924	280,377	53,660
9	Inland Waters	1	9,506	1	37,176		16,245	76,211	78,773
	Totals	3,219	19,214,391	1,019	4,644,121	1,793¾	5,744,984	1,557,370	1,956,846
	Values	$ c. 32,190 00	$ c. 960,719 55	$ c. 10,190 00	$ c. 464,412 10	$ c. 17,935 00	$ c. 574,498 40	$ c. 124,589 60	$ c. 195,684 60

FISHERIES.

the quantity and value of all fishing materials and other fixtures employed in the fishing the year 1917.

Fishing material.												Other fixtures used in fishing.			
Seines.			Pound nets.		Hoop nets.		Dip or Roll nets.		Night Lines.		Spears.		Freezers and Ice Houses.		Piers and Wharves.	
No.	Yards.	Value.	No.	Value.	No.	Value.	No.	Value.	No. Hooks.	Value.	No.	Value.		Value.	No.	Value.
		$ c.		$		$ c.		$ c.		$ c.		$		$ c.		$
....	.....	.....	61	17,050	34	2,930 00	....	.....	.....	.....	....	.....	50	14,080 00	39	6,690
....	.....	.....	57	18,250	....	.....	....	.....	.....	.....	....	.....	25	10,125 00	12	3,660
....	.....	.....	132	64,900	....	.....	....	.....	.....	.....	....	.....	33	7,885 00	23	9,150
1	50	50 00	8	8,050	25	345 00	....	.....	17,400	1,495 00	....	.....	21	4,650 00	21	3,300
5	335	420 00	67	22,350	....	.....	7	68	.....	.....	....	.....	20	4,425 00	6	335
70	12,949	6,593 00	10	3,450	106	8,060 00	2	10	1,900	127 00	....	.....	36	10,500 00	17	5,500
67	23,604	12,147 25	675	341,850	25	481 50	21	167	8,420	171 75	....	.....	133	117,750 00	62	23,940
36	3,676	1,911 00	....	.....	651	14,171 50	9	42	5,850	210 00	125	375 00	*1454	8,404 50	14	1,292
13	2,100	1,482 80	19	1,375	346	8,457 00	23	75	13,300	1,217 60	122	391 25	12	2,400 00	8	1,143
192	41,714	22,609 05	1029	474,275	1197	34 445 00	62	365	45,870	3,221 35	247	766 25	1784	180,229 50	202	55,009

*1,400 of these are spearing houses, value $1,700.50

of fish caught during the year 1917.

Sturgeon.	Eels	Perch.	Tullibee.	Catfish.	Carp.	Mixed and coarse fish.	Caviare.	Sturgeon Bladders.	Pickerel (Blue)	Value.
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	lbs.	$ c.
20,460	.....	679	174,445	8,000	173	592,638	790	677	.....	292,098 33
5,082	.....	.....	.....	75	700	332,774	22	100	.....	393,075 93
12,103	.....	24,731	111,737	122	68	391,909	53	.....	.....	274,804 03
3,239	.....	2,915	176,838	6,940	11,868	32,810	110	.....	.....	206,483 10
18,406	.....	119,417	539,594	556	4,558	123,656	933	137	.....	178,598 34
14,350	.....	151,765	.....	63,464	102,950	685,691	280	.....	.....	64,567 00
47,163	18,936	995,413	12,925	36,707	666,773	668,986	3,149	24	565,476	1,034,305 99
2,261	126,034	213,623	.....	225,348	391,349	717,714	63	.....	.....	367,876 22
9,430	24,015	28,526	8,080	110,833	241,182	332,208	116	700	.....	54,614 76
132,494	168,985	1,517,069	1,043,909	442,043	1,419,521	3,848,386	5,806	1,628	565,476	2,866,424 00
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
19,874 10	10,139 10	75,853 45	60,834 54	35,363 44	28,390 42	192,419 30	5,806 00	976 80	56,547 60	2,866,424 00

Comparative Statement of yield for 1916-17, according to Districts.

	1916.	1917.	Increase.	Decrease.
Kenora and Rainy River Districts:				
Herring ..... bbls....	.....	.....	.....	.....
Herring ..... lbs....	.....	167,920	167,920	.....
Whitefish ..... bbls....	3	23	20	.....
Whitefish ..... lbs....	685,140	680,717	.....	4,423
Trout ..... bbls....	4	2½	.....	1½
Trout ..... lbs....	74,616	111,804	37,188	.....
Pike ..... "	508,488	788,359	279,871	.....
Pickerel (Dore) ..... "	641,386	961,653	320,267	.....
Sturgeon ..... "	8,616	20,460	11,844	.....
Eels ..... "	.....	.....	.....	.....
Perch ..... "	7,757	679	.....	7,078
Tullibee ..... "	138,566	174,445	35,879	.....
Catfish ..... "	.....	8,000	8,000	.....
Carp ..... "	12,000	173	.....	11,827
Mixed and Coarse Fish..... "	365,823	592,638	226,815	.....
Caviare ..... "	940	790	.....	150
Sturgeon Bladders ..... No....	.....	677	677	.....
Lake Superior:				
Herring ..... bbls....	805½	2,655	1,849½	.....
Herring ..... lbs....	3,127,015	2,443,201	.....	683,814
Whitefish ..... bbls....	22	26	4	.....
Whitefish ..... lbs....	464,941	446,457	.....	18,484
Trout ..... bbls....	136½	743	606½	.....
Trout ..... lbs....	1,501,719	1,660,957	159,238	.....
Pike ..... "	24,771	17,806	.....	6,965
Pickerel (Dore) ..... "	89,733	70,070	.....	19,663
Sturgeon ..... "	3,307	5,082	1,775	.....
Eels ..... "	.....	.....	.....	.....
Perch ..... "	255	.....	.....	255
Tullibee ..... "	2,408	.....	.....	2,408
Catfish ..... "	40	75	35	.....
Carp ..... "	.....	700	700	.....
Mixed and Coarse Fish .... "	249,772	332,774	83,002	.....
Caviare ..... "	40	22	.....	18
Sturgeon Bladders ..... No....	.....	100	100	.....
Lake Huron, North Channel:				
Herring ..... bbls....	36	18	.....	18
Herring ..... lbs....	27,744	38,564	10,820	.....
Whitefish ..... bbls....	1,058	211	.....	847
Whitefish ..... lbs....	751,081	594,035	.....	157,046
Trout ..... bbls....	1,991	66	.....	1,925
Trout ..... lbs....	1,651,563	1,475,754	.....	175,809
Pike ..... "	83,697	112,488	28,791	.....
Pickerel (Dore) ..... "	273,224	260,321	.....	12,903
Sturgeon ..... "	13,588	12,103	.....	1,485
Eels ..... "	.....	.....	.....	.....
Perch ..... "	18,099	24,731	6,632	.....
Tullibee ..... "	66,910	111,737	44,827	.....
Catfish ..... "	527	122	.....	405
Carp ..... "	10,243	68	.....	10,175
Mixed and Coarse Fish .... "	336,345	361,909	25,564	.....
Caviare ..... "	239	53	.....	186
Sturgeon Bladders ..... No....	.....	.....	.....	.....
Georgian Bay:				
Herring ..... bbls....	292	38	.....	254
Herring ..... lbs....	27,744	90,360	62,616	.....
Whitefish ..... bbls....	1,058	466	.....	592
Whitefish ..... lbs....	751,081	415,185	.....	335,896
Trout ..... bbls....	1,991	624	.....	1,367

Comparative Statement of yield for 1916-17, according to Districts—Continued.

—		1916.	1917.	Increase.	Decrease
Georgian Bay—Continued:					
Trout	lbs.	1,651,563	1,230,878	.....	420,685
Pike	"	83,697	81,687	.....	2,010
Pickerel (Dore)	"	273,224	54,598	.....	218,626
Sturgeon	"	13,588	3,239	.....	10,349
Eels	"	.....	.....	.....	.....
Perch	"	18,099	2,915	.....	15,184
Tullibee	"	66,919	176,828	109,918	.....
Catfish	"	527	6,940	6,413	.....
Carp	"	10,243	11,868	1,625	.....
Mixed and Coarse Fish	"	336,345	32,810	.....	303,535
Caviare	"	239	410	171	.....
Lake Huron (proper):					
Herring	bbls.	277	466	189	.....
Herring	lbs.	204,789	376,815	172,026	.....
Whitefish	bbls.	11	82	71	.....
Whitefish	lbs.	74,960	60,135	.....	14,825
Trout	bbls.	1,029	334	.....	695
Trout	lbs.	871,484	783,078	.....	88,406
Pike	"	1,088	1,737	649	.....
Pickerel (Dore)	"	215,292	185,923	.....	29,369
Sturgeon	"	11,284	18,406	7,122	.....
Eels	"	3	.....	.....	3
Perch	"	146,142	119,417	.....	26,725
Tullibee	"	432,480	530,594	98,114	.....
Catfish	"	106	556	450	.....
Carp	"	8,509	4,558	.....	3,951
Mixed and Coarse Fish	"	87,558	123,656	36,098	.....
Caviare	"	777	923	146	.....
Sturgeon Bladders	No.	6	127	121	.....
Lake St. Clair and Detroit River:					
Herring	bbls.	.....	.....	.....	.....
Herring	lbs.	300	.....	.....	300
Whitefish	bbls.	.....	.....	.....	.....
Whitefish	lbs.	61,200	30,450	.....	30,750
Trout	bbls.	.....	.....	.....	.....
Trout	lbs.	.....	.....	.....	.....
Pike	"	40,879	58,023	17,144	.....
Pickerel (Dore)	"	49,992	64,389	14,397	.....
Sturgeon	"	18,900	14,350	.....	4,550
Eels	"	.....	.....	.....	.....
Perch	"	116,165	131,765	15,600	.....
Tullibee	"	.....	.....	.....	.....
Catfish	"	56,951	63,462	6,511	.....
Carp	"	606,773	102,950	.....	503,823
Mixed and Coarse Fish	"	275,911	685,691	409,780	.....
Caviare	"	490	280	.....	210
Lake Erie:					
Herring	bbls.	.....	.....	.....	.....
Herring	lbs.	5,210,531	14,157,839	8,947,308	.....
Whitefish	bbls.	.....	.....	.....	.....
Whitefish	lbs.	1,086,085	1,239,521	153,436	.....
Trout	bbls.	.....	.....	.....	.....
Trout	lbs.	3,714	2,344	.....	1,370
Pike	"	437,007	141,682	.....	295,325
Pickerel (Dore)	"	599,152	227,459	.....	371,693
Sturgeon	"	67,642	47,163	.....	20,479
Eels	"	.....	18,936	18,936	.....
Perch	"	769,156	995,413	226,257	.....

Comparative Statement of yield for 1916-17, according to Districts—Continued.

	1916.	1917.	Increase.	Decrease.
Lake Erie.—Continued:				
Tullibee .....lbs....	23,835	12,225	.....	11,610
Catfish ..... "	22,880	36,707	13,827	.....
Carp ..... "	782,296	666,773	.....	115,523
Mixed and Coarse Fish .... "	1,081,217	668,986	.....	412,231
Caviare ..... "	3,418½	3,149	.....	268½
Sturgeon Bladders .....No....	234	24	.....	210
Pickerel (Blue) .....lbs....	2,538,926	565,476	.....	1,973,450
Lake Ontario:				
Herring .....bbls....	554	41	.....	13½
Herring .....lbs....	1,610,490	1,930,186	319,696	.....
Whitefish .....bbls....	610	210	.....	400
Whitefish .....lbs....	1,130,614	1,140,445	9,831	.....
Trout .....bbls....	962	24	.....	938
Trout .....lbs....	347,767	463,924	116,157	.....
Pike ..... "	283,430	280,377	.....	3,053
Pickerel (Dore) ..... "	40,003	53,660	13,657	.....
Sturgeon ..... "	3,082	2,261	.....	821
Eels ..... "	142,825	126,034	.....	16,791
Perch ..... "	166,838	213,623	46,785	.....
Tullibee ..... "	3,683	.....	.....	3,683
Catfish ..... "	301,993	225,348	.....	76,645
Carp ..... "	267,952	391,249	123,297	.....
Mixed and Coarse Fish .... "	628,779	717,714	88,935	.....
Caviare ..... "	538	63	.....	475
Inland Waters:				
Herring .....bbls....	1	1	.....	.....
Herring .....lbs....	4,974	9,506	4,532	.....
Whitefish .....bbls....	1	1	.....	.....
Whitefish .....lbs....	40,552	37,176	.....	3,376
Trout .....bbls....	.....	.....	.....	.....
Trout .....lbs....	20,630	16,245	.....	4,385
Pike ..... "	63,760	76,211	12,451	.....
Pickerel (Dore) ..... "	43,577	78,773	35,196	.....
Sturgeon ..... "	16,707	9,430	.....	7,277
Eels ..... "	23,322	24,015	693	.....
Perch ..... "	28,631	28,526	.....	105
Tullibee ..... "	2,108	8,080	5,972	.....
Catfish ..... "	154,473	100,833	.....	53,640
Carp ..... "	153,365	241,182	87,817	.....
Mixed and Coarse Fish .... "	358,934	332,208	.....	26,726
Caviare ..... "	135	116	.....	19
Sturgeon Bladders .....No....	.....	700	700	.....

Statement of the yield and value of the Fisheries of the Province for the year 1917.

Kinds of Fish.	Quantity.	Price.	Value.
		$ c.	$ c.
Herring ....bbls....	3,219	10 00	32,190 00
Herring ....lbs....	19,214,391	05	960,719 55
Whitefish ....bbls....	1,019	10 00	10,190 00
Whitefish ....lbs....	4,644,121	10	464,412 10
Trout ....bbls....	1,793½	10 00	17,935 00
Trout ....lbs....	5,744,984	10	574,498 40
Pike .... "	1,557,370	08	124,589 60
Pickerel (Dore) .... "	1,956,846	10	195,684 60
Sturgeon .... "	132,494	15	19,874 10
Eels .... "	168,985	06	10,139 10
Perch .... "	1,517,069	05	75,853 45
Tullibee .... "	1,013,909	06	60,834 54
Catfish .... "	442,043	08	35,363 44
Carp .... "	1,419,521	02	28,390 42
Mixed and Coarse Fish .... "	3,848,386	05	192,419 30
Caviare .... "	5,806	1 00	5,806 00
Sturgeon Bladders ....No....	1,628	60	976 80
Pickerel (blue) ....lbs....	565,476	10	56,547 60
Total	....	....	2,866,424 00

Comparative Statement of the yield of the Fisheries of the Province.

——	1916	1917	Increase.	Decrease.
Herring ....bbls....	1,477	3,219	1,742	.....
Herring ....lbs....	10,244,128	19,214,391	8,970,263	.....
Whitefish ....bbls....	4,541	1,019	.....	3,522
Whitefish ....lbs....	4,708,801	4,644,121	.....	64,680
Trout ....bbls....	7,114½	1,793½	.....	5,321
Trout ....lbs....	5,677,436	5,744,984	67,548	.....
Pike .... "	1,483,631	1,557,370	73,739	.....
Pickerel (Dore) .... "	2,002,937	1,956,846	.....	46,091
Sturgeon .... "	147,526	132,494	.....	15,032
Eels .... "	166,150	168,985	2,835	.....
Perch .... "	1,258,516	1,517,069	258,553	.....
Tullibee .... "	819,724	1,013,909	194,185	.....
Catfish .... "	542,710	442,043	.....	100,667
Carp .... "	1,857,823	1,419,521	.....	438,302
Mixed and Coarse Fish .... "	3,436,593	3,848,386	411,793	.....
Caviare .... "	7,207½	5,806	.....	1,400½
Sturgeon Bladders ....No....	240	1,628	1,388	.....
Pickerel (Blue) ....lbs....	2,538,926	565,476	.....	1,973,450
Total Barrels	13,132½	6,031½	.....	.....
Total Pounds	34,892,108½	42,231,401	.....	.....
Total Decrease of Barrels..1917	.....	.....	.....	7,101
Total Increase of Pounds....1917	.....	.....	7,339,292½	.....

STATEMENT

of the number and value of the Tugs, Gasoline, Sail or Row Boats, Nets, Spears, etc., used in the Fishing Industry of the Province of Ontario, during the year 1917.

—	Number.	Value.
		$ c.
Tugs (3,032 tons)	120	601,100 00
Gasoline Launches	702	294,240 00
Sail or Row Boats	1,108	48,924 50
Gill Nets	5,951,537 yards.	616,001 00
Seines (41,714 yds.)	192	22,609 05
Pound Nets	1,029	474,275 00
Hoop Nets	1,197	34,445 00
Dip or Roll Nets	62	363 00
Night Lines	46,870	3,221 35
Spears	247	766 25
Freezers and Ice Houses	1,784	180,229 50
Piers and Wharves	202	55,009 00
Total		2,331,183 65

Number of men employed on Tugs	635
Number of men employed on Gasoline Launches	1,483
Number of men employed on Sail or Row Boats	1,587
Total	3,705

OUTPUT OF FISH FROM THE NORMANDALE HATCHERY, IN DETAIL, 1917.

White Fish.

Port Stanley	3,000,000
Port Dover	2,500,000
Nanticoke Shoal	1,000,000
Pottahawk Point	2,000,000
Ryersey Point	2,000,000
Long Point	2,000,000
Turkey Point Shoal	2,500,000
Normandale	500,000
Total	15,500,000

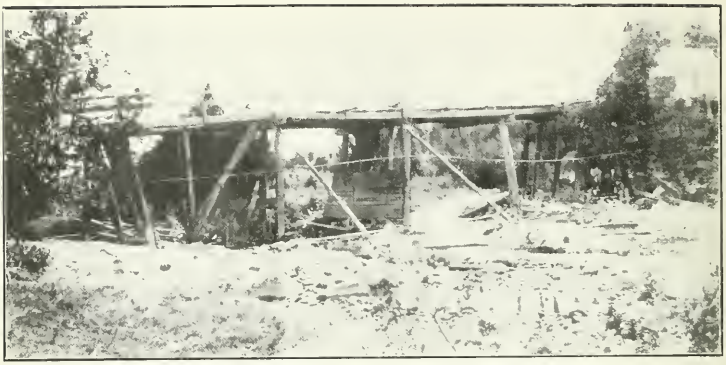
Herring Fry.

Port Dover	4,000,000
Bluff Bar	4,000,000
Deep Hole Point	2,000,000
Peacock Point	2,000,000
Woolley Point	2,500,000
Nanticoke Shoal	3,000,000
Turkey Point	4,000,000
Fishers Glen	2,500,000
Clear Creek	2,500,000
Pottohawk Shoal	4,000,000
Long Point Shoal	4,000,000
Snow Island	3,500,000
Total	38,000,000

Pickerel Fry.

Normandale	2,500,000

DANIEL AUSTIN, *Superintendent.*



Old Dungannon Bridge in Ashfield Township.
This bridge was replaced by the concrete structure shown below.

New Dungannon Bridge in Ashfield Township.
A concrete bridge on the Huron County Road System.

ANNUAL REPORT

OF THE

Department of Public Highways

ONTARIO

1918

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO

TORONTO:
Printed by A. T. Wilgress, Printer to the King's Most Excellent Majesty
1919

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THE RYERSON PRESS

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To His Honour Sir John Strathearn Hendrie, K.C.M.G., C.V.O., a Colonel in the Militia of Canada, etc., etc.

Lieutenant-Governor of the Province of Ontario.

May it Please Your Honour:

I herewith beg to present for your consideration the annual report of the Department of Public Highways, relating to Highway Improvement in the Province of Ontario.

Respectfully submitted,

F. G. Macdiarmid.

Minister of Public Works and Highways.

To the Honourable F. G. MACDIARMID,

Minister of Public Works and Highways.

SIR,—I have the honour to submit the annual report of the Department of Public Highways, having special reference to the work carried on by the several counties of Ontario under the Act to Aid in the Improvement of Public Highways, and subsidized by the Province; and to the work carried on by this Department under the Act to Provide for a Provincial Highway System.

Appended hereto are reports and statistics with respect to other activities and duties of the Department of Public Highways for the year 1918, including the Motor Vehicles Act and provisions of the Municipal Act with respect to Highway Bridges; a report of the annual meeting of the Ontario Good Roads Association held in March, 1919; and also a report of the annual meeting of the Eastern Ontario Good Roads Association.

I have the honour to be,

Sir,

Your obedient servant,

W. A. MCLEAN,

Deputy Minister of Highways.

Parliament Buildings, Toronto.
April 11th, 1919.

On the Provincial Highway.
Graded, ditched and gravelled.

ANNUAL REPORT

OF THE

Department of Public Highways

W. A. McLEAN, Deputy Minister

Road improvement throughout the Province promises to benefit, in a large and encouraging degree, with the cessation of the war, and the return of peace.

War conditions were increasingly evident throughout 1918 with respect to road construction and maintenance, and were more especially apparent in regard to the scarcity and high price of common labour, the cost of materials, equipment, freight, and all items of road expenditure. Scarcity of farm labour rendered it necessary to limit road work as far as possible during harvest, and at periods of the year when farm operations were most pressing.

With the expectation of readjustment in regard to these difficulties, and a return to a more normal and settled situation, the organization for road betterment which has been effected while the war was in progress should undoubtedly enable general and more substantial work to be carried out in all parts of the Province, with a view to steadily extending the advantages of good roads to every community and to every citizen.

I.

EXPENDITURE BY TOWNSHIP COUNCILS

The influence of the war on township roads is strikingly apparent from the returns of expenditure by township councils for the years 1913 to 1918 inclusive as follows:—

1913—Total of township council expenditures					.....	$2,761,702
1914—	"	"	"	"	.....	2,615,137
1915—	"	"	"	"	.....	1,680,187
1916—	"	"	"	"	.....	1,730,689
1917—	"	"	"	"	.....	1,615,790
1918—	"	"	"	"	.....	1,768,785

Classification of this expenditure will be found in Appendix A, page 19 of this Report.

Betterment of township road conditions can be confidently expected from the following influences:—

1. An increased expenditure by township councils may be anticipated with the return of peace conditions—an increase to at least the amounts immediately prior to the war.

2. The growth of county road systems will relieve township councils from the task of financing the more heavily travelled roads.

3. The construction of county and Provincial highways will serve as a model for an improved class of township work.

4. The tendency to improve township organization by placing township work under the supervision of a permanent township road overseer.

A Gravel Road in Wellington County.
Kept in good condition by systematic use of a log drag.

II.

COUNTY ROADS

Good municipal government in Ontario has received an impetus by the development of County Road Systems, subsidized by the Province. This has necessarily been beneficial by adding an important public duty to the responsibility of the County Council.

County roads are not a new departure in Ontario. The value of this organization was proven by the earlier road-builders of the Province. Middlesex, Wellington, Hastings and others owe the basis of existing main roads to that system. The Highway Improvement Act of 1901 revived interest in county roads, by appropriating $1,000,000 to be given in aid of model county roads.

The Act of 1901 granted aid to county roads in the proportion of one-third of expenditure on construction.

In 1907 the county road grant was established on a permanent basis, and by subsequent legislation,

(1) The grant for construction was increased to 40 per cent.

(2) A grant of 40 per cent. was provided for maintenance.

(3) A grant of 60 per cent. was provided for "Provincial County Roads"

(4) Cities are required to contribute to "Suburban Roads."

Provincial County Roads

Provincial county roads are roads which, because of their length and location, carry a considerable amount of through traffic, making them cost proportionately more to construct and maintain, and which additional cost the district through which they pass should not be required to pay. The larger subsidy of 60 per cent. is granted to more fairly equalize the burden.

With grants of 40 per cent. for the less-travelled roads, and 60 per cent. for the most heavily-travelled roads, it is estimated that the cost of county roads will now be about equally divided between the counties and the Province.

All the counties in the Province are now operating under this system, and 9,500 miles have been designated for improvement, and to which the Provincial grant is assured.

Widening a Grade on the Provincial Highway.
Formerly a long, narrow embankment on which two vehicles could not pass.

Responsibility and Supervision

Responsibility for the condition of county roads rests upon the county councils, who make their own appropriations, and carry out the work under their own superintendent. The Province subsidizes their work.

County roads are primarily the market roads of the townships, radiating from the cities, towns, villages and shipping points. They are the roads which have in the past absorbed the greater part of township expenditure, because of the heavy traffic on them. Every citizen benefits by them.

The relief given to township councils by placing the most heavily travelled market roads under the County Road System is a direct form of aid to all the township roads.

Classification of Suburban Roads

In addition, heavily travelled roads radiating from cities are being placed in a class of "Suburban Roads," to which cities contribute equally with the county; and the Provincial subsidy is 40 per cent. or 60 per cent. of the total, according to the class of road.

General Policy Pursued

It has been the policy of the Ontario Highway Department to encourage vigorously county road systems and to place no unnecessary restriction on the extension of these systems so as to include all systematic work which might be entitled to aid. The prosecution and extension of county road systems to a reasonable extent will provide that expenditure be made under experienced supervision, with proper machinery, and that the work, when completed, will be reasonably maintained. County Councils are everywhere learning to take this view of the situation and are seeking to bring their county road systems under systematic schemes of construction and maintenance.

Returns of county road work in 1918 show a total expenditure of $2,226,899.68, of which $1,482,610.30 was for construction, and $744,289.38 for maintenance. The Provincial subsidies amounted to $815,139.99, of which $604,245.01 was for construction and $211,194.98 for maintenance. The work included the following:—

Miles of road metalled with broken stone	98.01
Miles of road metalled with gravel	116.47
Total mileage of surfaced road, 1918	215.48
Miles of road graded only	321
Number of bridges constructed	93
Number of Culverts	900

Details of county road expenditures are shown in the schedules forming Appendices B and C of this report, and of county road organization and inspection, in Appendix E.

III.

PROVINCIAL HIGHWAYS

The Provincial Highway System was authorized by an Act of 1917, and provides that the Department of Public Highways may take over, maintain and construct leading roads throughout the Province.

Classification of roads and responsibility according to traffic has been one of the chief factors of success in every country which has developed a general system of good roads. While township councils were responsible for all the roads within their boundaries, and before there was a proper distribution of responsibility, very little real progress was made in road improvement in Ontario.

A step in advance was made, and better roads resulted, when roads were divided into two classes, and county councils were made responsible for roads carrying the heaviest market traffic. For a similar reason, Provincial Highways are a logical development in the road system.

Traffic and Provincial Highways

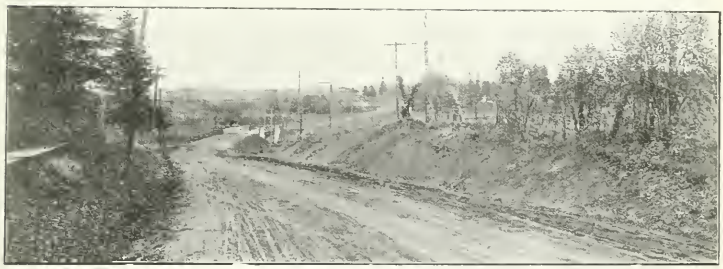
Many miles of road in the Province do not carry more than five or ten vehicles daily. Many do not carry more than two or three vehicles. Few purely township roads carry more than twenty vehicles daily. Apart from culverts and bridges, such roads, particularly in a district where gravel is plentiful, can readily be maintained by statute labour, or its equivalent.

Where traffic approaches forty or fifty vehicles daily, and mounts from that to the hundreds, necessary road expenditures show proportionate increases. By far the greater portion of township expenditure was formerly absorbed by the roads now included in County Road Systems. County Road Systems, as now laid out, when completed will carry fully eighty per cent. of the traffic of the Province. Relieved from this large amount of traffic, township councils are able to devote their efforts to the roads of light traffic, which can be cheaply built and maintained.

The majority of county roads now carry from fifty to one hundred vehicles daily, summer traffic. This is not a maximum for any day of the year, but is an average of a census extending over a week. Some roads average two hundred vehicles—roads radiating from the more active market towns and cities.

A census of traffic on the Toronto-Hamilton Highway in June, 1918, showed a daily average of 2,423 vehicles passing Long Branch; 1,745 vehicles passing Port Credit; and 1,697 vehicles at a point west of Burlington.

On the Provincial Highway, by a census in 1918, between Hamilton and St. Catharines, no point showed a traffic of less than 600 vehicles daily, and near Beamsville the number was 1,571.



On the Provincial Highway.

Bridges reconstructed, hill cut and ditched, the embankment across a river-flat raised and widened, the surface gravelled.

In Pickering Township, traffic amounted to an average of 559 vehicles on the Provincial Highway; near Kingston, 339; near Brockville, 414.

Between Woodstock and Ingersoll the traffic census in 1914 showed an average of 259 vehicles; near Brantford, 388 vehicles; at Ancaster, 237 vehicles. Traffic along this route has since been steadily increasing.

The main line of the Provincial Highway System from Windsor to the Quebec Boundary, with branches to Niagara and Ottawa, constitutes a series of important market roads, to which is added the traffic from numerous towns, cities and shipping points linked together along the route.

The future potential traffic of the route is very great. Within twelve miles of the route is fifty-two per cent. of the total population of the Province, and over one-third of the rural population.

It passes through twelve out of a total of twenty-three cities in the Province, containing eighty-four per cent. of the city population.

It passes through cities, towns and villages having seventy per cent. of the total urban population of the Province; and through twenty counties out of thirty-six counties in the Province.

The Provincial Highway passes through counties possessing 54 per cent., viz., $843,955,479, of the total farm property (including land, buildings, implements and stock); and producing 51 per cent., viz., $170,576,414, of the total field crops of the Province of Ontario, for 1917.

The Provincial Highway a Series of Market Roads

The chief road contemplated in the Provincial System was opened as a through route by the early settlers, who established their homesteads along or as near to it as possible. Towns and cities grew up along it. The farming community along the route is fairly entitled to a good market road. Yet, as soon as the various sections

A Winding Section of the Provincial Highway.
This portion has not yet been graded and ditched to the final cross-section, but is kept in repair by gravelling and dragging.

are joined up, or approximately so, with ordinary construction for local purposes, heavy commercial traffic will render the expenditure futile. Lincoln County Council had been spending nearly $1,000 per mile annually, in an effort to maintain the Queenston and Grimsby Stone Road, twenty-six miles in length, through that county. The cost merely of repairing this road would build many lightly travelled roads in the Province.

Section by section it forms a series of most important market roads for local farm traffic. Residents on and adjacent to these roads are entitled to its proper maintenance for their market traffic. These roads must be so built as to carry all the heavy traffic which is flowing over them (or which will flow over them when improved to a reasonable standard), or else the farming community along them is unfairly penalized for residing on them. Local residents either cannot maintain the road, or do so only at an unfair cost.

Expenditure Already Exists

Because they are assumed as Provincial Highways, new roads are not created: the roads already exist, the bridges and culverts on them must be built, and through township and county organization, considerable expenditures are being made on them, as indicated by experience as stated on the Queenston and Grimsby Road. But the results are disappointing in many cases, for those portions of the proposed Provincial Highway, under local management, are not being built and maintained in proportion to the traffic over them, and many of the townships through which they pass have protested their inability to properly maintain them, urging, and even demanding as their right, that the Province assume the cost of the major portion of this traffic.

Equitable Local Apportionment of Cost

In conjunction with county road grants, the Provincial Highway will afford a well-balanced system, whereby market roads suited to traffic can be built in all parts

A Widened and Gravelled Portion of the Provincial Highway.

of the Province, at approximately the same cost locally to each district. It is the aim of the Provincial Highways Act to require each benefited municipality to pay toward a Provincial Highway an amount at least equal to the cost of a road suited to local market traffic. This is equitable for all, for a good gravel or stone road, lightly travelled, is fully as useful in its place as is the more expensive road built for the heavier traffic which the latter must carry.

If we are not to build these roads strong enough for the combined traffic they are to carry, the farmers so unfortunate as to reside along or who depend upon sections of these main routes for access to market will be penalized, for they can have the needed market road by no other effective means.

The commercial and social advantage cannot be doubted of joining up intimately the community life of such towns and cities as Ottawa, Cornwall, Prescott and Brockville; Cobourg and Port Hope; Oshawa and Whitby; and linking these at last with Toronto. Or in the west, bringing together Hamilton, St. Catharines and Niagara Falls; giving Hamilton and Brantford easy access the one to the other and to Toronto; and facilitating the closer relations of Woodstock, Ingersoll and London; St. Thomas, Chatham and Windsor.

IV.

MOTOR VEHICLE REGISTRATION

The use of motor cars in the Province has continued to increase. In 1918 there was registered one vehicle for each 23 of population. In comparison with the use of cars in other Provinces and in the United States, there would appear to be room for at least 225,000 cars in Ontario (or one for each 12 of population); which number will probably be reached by a substantial growth annually.

The motor vehicle has become a recognized necessity of every-day life; as much so as the telephone, telegraph, steam railway, and similar advantages of the age in which we live. It enters into the practical affairs of the farmer, merchant, doctor, business men, men of the skilled trades, manufacturers, and has given the common highway a greatly increased transportation value.

The road and the vehicle are complementary parts of the one machine. The commercial value of well-built roads connecting urban centres is equal to the efficiency of the motor car—and the efficiency and usefulness of the motor car and motor truck have been demonstrated beyond all question by the large and growing number employed.

In 1918, there were 101,845 motor cars and 7,529 motor trucks registered in the Province. Motor trucks are purely commercial. Of the passenger cars 37,262 were owned by farmers. Of the passenger cars, 84,018, or over 82 per cent., were small machines such as the Ford or Chevrolet, of 25 horse-power or less.

Increase of Registration over 1917

Passenger car registration, 1918	101,845	
Motor truck registration, 1918	7,529	
Total registration, 1918		109,374
Passenger car registration, 1917	78,861	
Motor truck registration, 1917	4,929	
Total registration, 1917		83,790
Total increase in registration, 1918		25,584

Municipal Distribution of Ownership

Passenger cars owned in Toronto	17,171	
Passenger cars owned in other cities	19,528	
Total passenger cars owned in cities		36,699
Passenger cars owned in towns, villages and townships		64,900
Total cars owned in Ontario		101,599
Total cars owned outside Ontario		246
Total registration		101,845

Classification of Car Types

Touring cars	91,866	
Runabouts	7,114	
Coupes, sedans and limousines	2,758	
Taxicabs	49	
Buses and ambulances	58	
Total registration		101,845

Occupation of Owners

Farmers and drovers	37,758	
Skilled trades	6,634	
Business firms	2,106	
Merchants and manufacturers	27,144	
Physicians	2,712	
Other professions	3,529	
Commercial travellers	2,507	
Agents	2,833	
Liverymen	1,784	
Soldiers	634	
Government and corporations	569	
Military departments and units	365	
Unspecified and unoccupied	13,270	
Total		101,845

Classification According to Horse Power

Steam cars	4	
Electric cars	162	
25 h.p. and less	84,018	
26 h.p. to 30 h.p.	13,220	
31 h.p. to 35 h.p.	2,581	
36 h.p. to 50 h.p.	1,829	
51 h.p. and over	31	
Total		101,845

Weight of Commercial Vehicles

½-ton trucks	2,567	
1-ton trucks	3,274	
1½-ton and 2-ton trucks	830	
2½-ton trucks	23	
3-ton and 3½-ton trucks	284	
4-ton and 5½-ton trucks	533	
6-ton and over	18	
Total		7,529

Motorcycles

Motorcycles registered, 1917	5,180	
Motorcycles registered, 1918	5,002	
Total decrease in 1918		178

Chauffeurs' Licenses

Licensed drivers registered in 1917	8,214	
Licensed drivers registered in 1918	10,629	
Total increase in 1918		2,415

Licenses Issued for Motor Vehicles, 1903 to 1918

Year	Passenger Cars	Commercial Cars	Motor Cycles	Professional Drivers	Revenue
					$
1903	220	.....	.....	.....	.....
1904	535	.....	.....	.....	1,680 00
1905	553	.....	.....	.....	1,142 00
1906	1,176	.....	.....	.....	5,523 15
1907	1,530	.....	.....	.....	8,098 50
1908	1,754	.....	.....	.....	10,007 75
1909	2,452	.....	.....	.....	12,418 75
1910	4,230	.....	.....	.....	24,394 01
1911	11,339	.....	.....	.....	50,831 22
1912	16,266	.....	1,754	2,965	73,255 96
1913	23,700	.....	2,900	3,514	105,558 95
1914	31,724	.....	3,633	3,773	149,210 45
1915	42,346	.....	4,174	5,322	334,759 78
1916	51,589	2,786	4,287	5,966	639,987 09
1917	78,861	4,929	5,180	8,214	930,753 00
1918	101,845	7,529	5,002	10,629	1,214,093 87

APPENDIX A

Township Road Expenditure

The following schedule shows the expenditure by the Township Councils of the Province, grouped according to counties, for the period of six years, 1913-1918, inclusive. This does not include the expenditure by councils of counties, towns, villages and cities; nor Provincial grants or expenditures.

Name of County	1913	1914	1915	1916	1917	1918	Total
Algoma	$26,223	$27,347	$20,974	$21,345	$20,971	$24,456	$141,316
Brant	54,417	84,597	37,149	48,613	41,934	21,498	288,208
Bruce	89,168	71,706	48,403	50,944	64,104	66,814	391,139
Carleton	66,935	72,838	40,955	41,423	40,320	31,824	294,295
Dufferin	59,816	31,574	23,253	27,093	15,301	17,462	174,499
Elgin	83,206	78,799	65,901	67,808	49,836	47,730	393,280
Essex	116,394	103,005	84,675	43,095	42,749	66,297	456,215
Frontenac	40,941	40,819	29,147	24,480	29,189	27,757	192,333
Grey	96,579	75,207	47,899	75,506	58,159	69,661	423,011
Haldimand	22,291	25,687	20,287	16,995	22,048	24,290	131,598
Haliburton	9,896	13,656	6,382	6,889	11,586	10,606	59,015
Halton	40,295	46,895	25,601	26,075	20,299	24,768	183,933
Hastings	33,444	34,134	26,158	29,791	24,197	23,518	171,242
Huron	114,985	71,096	50,303	63,994	45,508	60,690	406,576
Kenora	2,120	2,710	2,547	2,622	2,557	2,372	14,928
Kent	57,092	65,412	43,779	48,579	42,006	38,456	295,324
Lambton	112,438	124,576	57,471	72,393	56,026	48,136	471,040
Lanark	18,623	18,168	15,546	13,143	11,347	10,636	87,463
Leeds and Grenville	72,677	91,475	60,299	59,065	48,306	70,686	402,508
Lennox and Addington	21,615	19,772	13,874	12,871	15,370	16,914	100,416
Lincoln	49,042	37,120	34,072	37,195	35,589	56,307	249,325
Manitoulin	10,446	12,186	7,941	7,909	8,935	9,488	56,905
Middlesex	120,865	114,507	98,449	94,608	64,349	74,612	567,390
Muskoka	19,641	21,311	19,794	17,863	18,896	19,847	117,352
Nipissing	85,889	54,862	18,698	25,956	41,455	8,749	235,609
Norfolk	44,181	39,699	20,664	20,730	18,983	28,545	172,802
Northumberland and Durham	84,597	56,526	58,086	56,422	53,564	39,083	348,278
Ontario	76,408	54,347	48,580	51,011	48,978	56,551	335,875
Oxford	78,156	66,398	44,081	51,776	40,488	68,426	349,325
Parry Sound	14,997	15,176	11,271	13,088	17,223	21,695	93,450
Peel	60,639	28,189	28,173	23,098	19,635	22,549	182,283
Perth	81,255	77,102	48,739	50,624	50,789	57,493	366,002
Peterborough	28,366	26,243	19,924	16,520	20,206	29,706	140,965
Prescott and Russell	51,954	48,103	34,091	30,761	32,333	31,165	228,407
Prince Edward	10,524	6,949	5,841	5,380	5,067	6,504	40,265
Rainy River	24,578	41,191	22,050	21,040	21,072	26,215	156,146
Renfrew	30,681	24,482	20,572	19,169	21,561	21,836	138,301
Simcoe	73,389	68,142	39,393	42,807	46,039	53,382	323,152
Stormont, Dundas and Glengarry	92,953	100,964	56,749	59,803	63,134	57,808	431,411
Sudbury	16,998	19,516	15,950	19,539	17,849	22,059	111,911
Thunder Bay	32,066	43,755	23,586	21,803	29,314	27,412	177,936
Temiskaming	8,181	15,436	13,047	13,331	9,217	62,699	121,911
Victoria	36,940	36,137	28,145	29,304	25,730	23,621	179,877
Waterloo	63,102	31,338	17,642	24,821	22,258	25,948	185,109
Welland	47,602	71,336	32,209	37,030	34,163	33,469	256,109
Wellington	73,089	59,104	30,418	32,295	30,716	42,836	268,459
Wentworth	90,352	101,788	32,124	34,447	34,377	44,768	337,856
York	215,656	243,757	129,295	119,635	121,757	91,441	921,541
Total	2,761,792	2,615,137	1,680,187	1,730,689	1,615,790	1,768,785	12,172,290

APPENDIX B

Expenditure on County Roads

The following Schedule shows in detail the work and approved expenditure on County

County.	Work done during year							Approved	
	Miles graded	Miles stoned	Miles gravelled	Tile Drain. rods	Bridges	Pipe and Tile Culverts	Other Culverts	Roads and Culverts	Bridges
								$ c.	$ c.
Wentworth		5.80		12	1	4	7	31,301 47	3,308 12
Lanark		7.00	0.25		2	4		19,800 85	26,949 51
Simcoe			0.75		2	23	2	6,405 56	13,478 22
Wellington	6.81	1.59	2.75	43	7	45	2	15,092 03	14,501 16
Lincoln	53.75	14.00	2.50			80	14	137,059 12	
Oxford	5.00	2.50	5.00	150	2	38		23,275 05	2,097 75
Hastings					1				1,120 29
Peel	2.40					23		5,714 02	
Middlesex	1.85		17.40	804		14	8	38,701 06	
Lennox & Addingt'n		0.25						1,291 85	
Prince Edward				20				976 21	
Halton	1.50	1.75	0.25		1	12	7	11,061 85	40,007 26
Perth	3.75	1.18	4.94	1,081	1	7		16,676 49	2,858 78
Frontenac	2.62	3.50		42	3	27		14,869 19	3,040 63
Waterloo	1.65	2.25	11.90	67	3	9	1	23,016 81	5,725 53
Carleton	4.25	5.19	7.86		2	18	2	34,798 77	25,143 50
Leeds and Grenville	1.95	5.25		6		8	9	23,426 82	
York	6.72	9.18		279	5	27	39	164,706 93	11,295 38
Haldimand	92.25					100	1	12,763 71	
Welland	12.20	11.03				19	19	37,978 64	
Essex	2.66			48	3		9	7,471 62	16,642 02
Prescott & Russell					7	7		3,291 63	71,378 52
Stormont, Dundas and Glengarry		24.66			8		7	97,984 84	14,765 50
Brant	6.30	0.08	2.50	511	1	18	1	10,458 98	4,702 06
Victoria	12.50		6.25	20		18	5	5,031 46	1,805 45
Huron	0.25		3.38	280	5	1	4	7,031 15	15,162 92
Bruce	70.00		16.00	36	6	14	10	17,277 80	10,394 91
Ontario	6.10	0.80	7.25		1	7	4	11,249 33	2,281 35
Norfolk	0.07			10	2	9	1	3,683 54	4,820 56
Kent				1,700	8	13	11	12,866 92	8,577 69
Elgin	7.85	2.00	13.90	64	4	40	9	28,661 22	12,595 67
Renfrew	5.50		0.11		2	10	3	5,457 86	5,397 95
Grey					4	45		1,553 83	6,732 00
Dufferin	1.44				1	15	1	2,022 30	3,742 50
Lambton	1.28		1.00	239	4	9	9	3,418 19	17,738 84
Northumberland and Durham	10.00		10.00		2	8	4	18,913 04	2,000 06
Totals	320.65	98.01	113.99	5,412	88	672	189	855,290 14	348,264 13

APPENDIX B

(Not including Provincial County Roads)

Roads during 1918, upon which Provincial subsidies were paid in 1919

Expenditure for year					Construction		Maintenance		Construction and Maintenance
Machinery and Repairs	Special Grants	Superintendence	Purchases of Toll Roads and Gravel Pits		Total Approved Expenditure	Government Grant 40%	Total Approved Expenditure	Government Grant 20%	Total Government Grant
$ c.	$ c.	$ c.	$ c.		$ c.	$ c.	$ c.	$ c.	$ c.
1,901 93	.....	3,267 81	.....		39,779 33	15,911 73	24,243 96	4,848 79	20,760 52
1,739 20	.....	1,816 16	.....		50,305 72	20,122 29	14,972 46	2,994 49	23,116 78
302 69	6,343 61	2,034 25	.....		28,564 33	11,425 73	32,394 22	6,478 84	17,904 57
2,328 60	3,082 18	2,492 84	.....		37,496 81	14,998 72	24,698 52	4,939 70	19,938 42
13,562 15	.....	2,471 31	.....		153,035 58	61,213 43	15,825 39	3,164 68	64,378 11
2,811 55	3,250 00	2,248 44	.....		33,682 79	13,473 12	13,789 70	2,757 94	16,231 06
279 05	.....	3,356 21	.....		4,755 55	1,902 22	29,170 53	5,834 11	7,736 33
1,502 30	.....	1,389 25	.....		8,406 57	3,362 63	7,378 93	1,475 79	4,838 42
374 56	1,090 00	2,260 00	.....		42,335 62	16,934 25	25,313 46	5,062 69	21,996 94
1,334 40	3,010 46	1,259 95	.....		6,896 66	2,758 66	11,504 46	2,300 89	5,059 55
1,551 51	1,402 51	1,714 25	.....		5,644 48	2,257 79	19,807 33	3,961 47	6,219 26
309 28	.....	1,128 96	.....		52,507 35	21,002 92	7,825 08	1,565 02	22,567 94
113 48	.....	940 00	.....		20,588 75	8,235 50	6,114 63	1 222 93	9,458 43
880 19	.....	1,451 98	.....		20,241 99	8,096 80	11,517 78	2,303 56	10,400 36
801 67	7,000 00	2,053 78	.....		38,597 79	15,439 12	14,036 88	2,807 38	18,246 50
14,632 69	.....	1,552 75	.....		76,127 62	30,451 05	8,143 95	1,628 79	32,079 84
701 14	483 60	2,013 31	9,000 00		35,624 87	14,249 95	7,137 20	1,427 44	15,677 39
1,460 89	.....	3,551 87	.....		181,015 07	72,406 03	52,838 89	6,567 78	78,973 81
941 00	199 16	1,974 75	.....		15,878 60	6,351 44	17,741 62	3,548 32	9,899 76
9,546 08	.....	1,809 04	.....		49,333 76	19,733 50	38,142 10	7,628 42	27,361 92
317 65	.....	1,809 13	.....		26,240 42	10,496 17	6,323 54	1,264 71	11,760 88
1,451 79	.....	2,173 52	.....		78,295 46	31,318 18	6,428 20	1,285 64	32,603 82
2,085 38	.....	2,768 46	.....		117,694 18	47,041 67	30,102 22	6,020 44	53,062 11
1,246 79	.....	2,145 37	4,000 00		22,553 20	9,021 28	15,289 21	3 057 84	12,079 12
1,262 24	7,001 87	1,767 93	.....		16,868 95	6,747 58	8,067 07	1,613 41	8,360 99
6,832 50	.....	2,055 03	.....		31,081 60	12,432 64	21,792 98	4,358 60	16,791 24
3,368 83	2,165 98	2,955 58	.....		36,163 10	14,465 24	6,182 59	1,236 52	15,701 76
6,266 57	.....	1,469 74	.....		21,266 99	8,506 80	17,258 96	3,451 79	11,958 59
4,864 96	.....	2,021 58	.....		15,390 64	6,156 26	7,957 36	1,591 47	7,747 73
1,287 71	.....	2,492 97	.....		25,225 29	10,090 12	27,084 64	5,416 93	15,507 05
4,227 49	2,018 18	2,018 66	860 72		50,381 94	20,152 78	20,587 97	4,117 59	24,270 37
2,032 03	.....	1,816 16	.....		14,704 00	5,881 60	8,688 83	1,737 77	7,619 37
.....	.....	2,413 54	.....		10,699 37	4,279 75	16,648 28	3,329 65	7,609 40
.....	.....	533 89	.....		6,298 60	2,519 44	7,653 94	1,530 79	4,050 23
1,715 36	.....	1,219 23	.....		24,091 62	9,636 65	6,807 68	1,361 53	10,998 18
984 38	5,779 27	1,246 45	.....		28,923 20	11,569 28	18,978 07	3,795 61	15,364 89
94,759 95	42,736 82	71,694 04	13,860 72		1426605 80	570,642 32	588,446 61	117689 32	688,331 64

APPENDIX C

Expenditure on

The following Schedule shows in detail the work and approved expenditure on Provincial

County	Work done during year					
	Miles graded	Miles gravelled	Tile drain, rods	Bridges	Pipe and Tile Culverts	Other Culverts
Wentworth						2
Simcoe						
Wellington				1		
Oxford						
Hastings						
Peel	0.20		206		8	
Middlesex			10	1	1	1
Lennox and Addington						
Prince Edward						
Prescott and Russell				1		
Stormont, Dundas and Glengarry						
Huron						
Norfolk					9	1
Elgin		2.25	116	1	6	3
Grey						
Dufferin	0.10				4	
Lambton	0.5	0.23		1	2	
Northumberland and Durham						2
Total	0.35	2.48	332	5	30	9

APPENDIX C

Provincial County Roads

County Roads during 1918, upon which Provincial subsidies were paid during 1919.

		Approved expenditure for year			
Roads and Culverts	Bridges	Construction	Maintenance	Total Approved Expenditure	Government Grant 60%
$2,240 63	.....	$2,240 63	$5,368 37	$7,609 00	$4,565 40
.....	.....	.....	7,319 16	7,319 16	4,391 50
.....	11,613 49	11,613 49	6,178 53	17,792 02	10,675 21
.....	.....	.....	3,382 63	3,382 63	2,029 58
.....	.....	.....	14,732 24	14,732 24	8,839 34
2,302 92	.....	2,302 92	17,268 61	19,571 53	11,742 92
2,866 77	1,266 78	4,133 55	21,655 54	25,789 09	15,473 45
.....	.....	.....	2,662 77	2,662 77	1,597 66
.....	.....	.....	13,239 96	13,239 96	7,943 98
.....	10,577 00	10,577 00	3,268 32	13,845 32	8,307 19
.....	.....	.....	21,312 25	21,312 25	12,787 35
.....	.....	.....	6,490 72	6,490 72	3,894 43
3,001 58	.....	3,001 58	6,478 89	9,480 47	5,688 28
7,337 84	5,697 12	13,034 96	12,873 50	25,908 46	15,545 08
.....	.....	.....	7,247 82	7,247 82	4,348 69
510 55	834 91	1,345 46	2,653 91	3,999 37	2,399 62
2,181 67	4,243 36	6,425 03	1,711 11	8,136 14	4,881 68
1,329 88	.....	1,329 88	1,998 44	3,328 32	1,996 99
$21,771 84	$34,232 66	$56,004 50	$155,842 77	$211,847 27	$127,108 35

APPENDIX D—SCHEDULE 1

PROVINCIAL HIGHWAY COSTS

1918-1919

	Construction		Maintenance		Grand Total	
	Total Cost	Municipal Contribution	Total Cost	Municipal Contribution	Total Cost	Municipal Contribution
Pickering, Twp.	$9,734 50	$2,920 35	$7,999 80	1,199 94	$13,734 30	$4,120 29
Whitby, West, Twp.	1,039 56	311 86	829 34	248 80	1,868 90	560 66
Whitby, East "	2,114 76	634 42	6,104 26	1,831 27	8,219 02	2,465 69
Darlington "	1,312 22	393 67	4,291 40	1,287 42	5,603 62	1,681 09
Clarke "	4,291 72	1,287 52	1,311 09	393 31	5,602 81	1,680 83
Hope "	6,787 94	2,036 38	3,584 99	1,075 50	10,372 93	3,111 88
Whitby, Town	1,587 83	476 34	2,727 03	818 11	4,314 86	1,294 45
Newcastle, Village	1,098 44	329 53	553 99	166 19	1,652 43	495 72
Bowmanville, Town	11,174 31	6,704 59	253 55	76 06	11,427 86	6,780 65
Ontario, County			696 77	209 03	696 77	209 03
Pickering, Village			301 76	90 53	301 76	90 53
N. Fredericksburg, Twp.	183 90	55 17	4,472 69	1,341 80	4,656 59	1,396 97
Louth, Twp.	1,708 47	512 54	4,409 30	1,322 79	6,117 77	1,835 33
Oxford, Twp.	1,433 53	430 06	3,415 58	1,024 67	4,849 11	1,454 73
Saltfleet, Twp	2,055 05	616 51	5,259 14	1,577 74	7,314 19	2,194 25
Grantham "	2,299 42	689 82	2,884 93	865 48	5,184 35	1,555 30
Brighton, Village	83 62	25 09	1,714 57	514 36	1,798 19	539 45
Sidney, Twp.			2,634 46	790 34	2,634 46	790 34
Colborne, Village	134 50	40 35	1,300 10	390 03	1,434 60	430 38
Edwardsburg, Twp.	10 80	3 23	1,772 19	531 66	1,782 99	534 89
Kingston "	36 10	10 83	3,768 94	1,130 68	3,805 04	1,141 51
Cramahe "	120 90	36 27	2,641 92	792 58	2,762 82	828 85
Brighton "	22 00	6 60	5,590 07	1,677 02	5,612 07	1,683 62
Murray "	3 00	90	4,693 73	1,408 12	4,696 73	1,409 02
Grimsby North "	2,163 35	649 00	2,993 45	898 03	5,156 80	1,547 03
Clinton "	1,659 85	497 95	2,235 23	670 57	3,895 08	1,168 52
Haldimand "	135 10	40 53	2,900 23	870 07	3,035 33	910 60
Niagara "	1,426 60	427 98	694 70	208 41	2,121 30	636 39
North Gower "	194 45	58 35	1,322 95	396 88	1,517 40	455 21
Nepean, Twp	590 25	177 07	745 87	223 76	1,336 12	400 83
Ernestown, Twp			5,970 51	1,791 15	5,970 51	1,791 15
Total	$53,402 17	$19,372 89	$86,074 54	$25,822 30	$139,476 71	$45,195 19
Purchase of Cobourg and Port Hope Toll Road, Apportionment of Cost						
Durham and Northumberland, Counties (25%)		$2,000 00				$2,000 00
Port Hope, Town (9%)		720 00				720 00
Cobourg " (9%)		720 00				720 00
Hope, Township (3%)		240 00				240 00
Hamilton " (14%)		1,120 00				1,120 00
Total	$8,000 00	$4,800 00			$8,000 00	$4,800 00
Machinery Account					31,873 83	
Property "					4,139 39	
Grand Total	$61,402 17	$24,172 89	$86,074 54	$25,822 30	$183,489 93	$49,995 19

APPENDIX D—SCHEDULE 2

PROVINCIAL HIGHWAY CONSTRUCTION (Cost Details)

1918-1919

—	Earth Work	Tile and Pipe Draining	Road Surface	Bridges and Culverts	Guard Rail and Catch Basins	Material, Road Foundation	Credits	Grand Total	Amount due from Municipality 30 %	—
Pickering, Twp	$4,820 99	$62 18		$5,198 63	$20 46		$367 76	$9,734 50	$2,920 35	Lumber transferred to Hope Twp., Bowmanville and Newcastle.
Whitby, West, Twp	954 35			82 21	3 00			1,039 56	311 86	
Whitby, East "	1,202 05			1,112 71			200 00	2,114 76	634 42	Lumber transferred to Pickering Twp.
Darlington "	649 60			617 97	44 65			1,312 22	393 67	
Clarke "	1,959 16			2,302 06	30 50			4,291 72	1,287 52	
Hope "	3,138 95			3,825 81	59 65		236 47	6,787 94	2,036 38	Lumber transferred East Whitby and refund Canada Cement Co.
Whitby, Town	1,325 25			262 08	50			1,587 83	476 34	
Newcastle "	744 75			341 19	12 50			1,098 44	329 53	
Bowmanville, Town	1,125 66			5 00				11,174 31	6,704 59	
Bridge 4,951 50				7,177 21						
" 4,960 00				2,866 44						
North Fredericksburg, Twp	123 90			60 00				183 90	55 17	
Louth, Twp	1,391 85			142 95	173 67			1,708 47	512 54	
Oxford "	365 28		141 50			926 75		1,433 53	430 06	
Saltfleet "	1,808 30	54 90		191 85				2,055 05	616 51	
Grantham, Twp	1,499 45	384 92		415 05				2,299 42	689 82	
Brighton, Village	51 50			32 12				83 62	25 09	
Colborne, Village	42 50			92 00				134 50	40 35	
Edwardsburg, Twp	5 55			1 65	3 60			10 80	3 23	
Kingston "	33 10			3 00				36 10	10 83	
Cramahe "	110 90			10 00				120 90	36 27	
Brighton "	13 00				9 00			22 00	6 60	
Murray "	3 00							3 00	90	
Grimsby North "	2,021 60			141 75				2,163 35	649 00	
Clinton "	1,659 85							1,659 85	497 95	
Haldimand "	135 10							135 10	40 53	
Niagara "	1,347 85			78 75				1,426 60	427 98	
North Gower "			77 45			117 00		194 45	58 33	
Nepean "	590 25							590 25	177 07	
Total	$27,123 74	$502 00	$218 95	$24,960 43	$357 53	$1,043 75	$804 23	$53,402 17	$19,372 89	

APPENDIX D—SCHEDULE 3

PROVINCIAL HIGHWAY MAINTENANCE (Cost Details)

1918-1919

—	Earth work	Road surface	Bridges and Culverts	Guard rail and catch basins	Cleaning, weed cutting and removal of snow	Credits	Grand Total	Amount due from Municipality, 30%
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
Pickering, Twp.	.....	3,831 23	212 82	46 25	57 67	148 17	3,999 80	1,199 94
Whitby, West, Twp.	.....	813 24	16 10	.....	.....	.....	829 34	248 80
Whitby, East, Twp.	.....	5,943 22	149 94	3 00	8 10	.....	6,104 26	1,831 27
Darlington, Twp.	.....	4,275 70	.....	6 20	9 50	.....	4,291 40	1,287 42
Clarke, Twp.	.....	1,181 78	8 00	14 50	106 81	.....	1,311 09	393 31
Hope, Twp.	.....	3,267 62	106 34	47 66	163 37	.....	3,584 99	1,075 50
Whitby, Town	.....	2,725 53	.....	1 50	.....	.....	2,727 03	818 11
Newcastle, Village	.....	544 99	.....	9 00	.....	.....	553 99	166 19
Bowmanville, Town	.....	253 55	.....	.....	.....	.....	253 55	76 06
Ontario, County	.....	.....	696 77	.....	.....	.....	696 77	209 03
Pickering, Village	.....	301 76	.....	.....	.....	.....	301 76	90 53
North Fredericksburg, Twp.	864 10	3,608 59	.....	.....	.....	.....	4,472 69	1,341 80
Louth, Twp.	.....	4,241 50	159 55	8 25	.....	.....	4,409 30	1,322 79
Oxford, Twp.	.....	3,363 28	43 85	8 45	.....	.....	3,415 58	1,024 67
Saltfleet, Twp.	.....	5,259 14	.....	.....	.....	.....	5,259 14	1,577 74
Grantham, Twp.	.....	2,884 93	.....	.....	.....	.....	2,884 93	865 48
Brighton, Village	.....	1,714 57	.....	.....	.....	.....	1,714 57	514 36
Sidney, Twp.	.....	2,533 56	.....	100 90	.....	.....	2,634 46	790 34
Colborne, Village	.....	1,300 10	.....	.....	.....	.....	1,300 10	390 03
Edwardsburg, Twp.	113 90	1,635 19	23 10	.....	.....	.....	1,772 19	531 66
Kingston, Twp.	.....	3,763 99	4 95	.....	.....	.....	3,768 94	1,130 68
Cramahe, Twp.	.....	2,595 60	5 00	41 32	.....	.....	2,641 92	792 58
Brighton, Twp.	.....	5,588 57	1 50	.....	.....	.....	5,590 07	1,677 02
Murray, Twp.	.....	4,685 45	5 00	3 28	.....	.....	4,693 73	1,408 12
Grimsby North, Twp.	1 20	2,971 25	21 00	.....	.....	.....	2,993 45	898 03
Clinton, Twp.	.....	2,231 53	.....	3 70	.....	.....	2,235 23	670 57
Haldimand, Twp.	.....	2,807 35	13 14	79 74	.....	.....	2,900 23	870 07
Niagara, Twp.	.....	692 90	.....	1 80	.....	.....	694 70	208 41
North Gower, Twp.	.....	1,034 05	.....	.....	288 90	.....	1,322 95	396 88
Nepean, Twp.	.....	745 87	.....	.....	.....	.....	745 87	223 76
Ernestown, Twp.	1,622 21	4,348 30	.....	.....	.....	.....	5,970 51	1,791 15
Total	$2,601 41	$81,144 34	$1,467 06	$375 55	$634 35	$148 17	$86,074 54	$25,822 30

APPENDIX E

REPORTS OF COUNTY ROAD INSPECTION

TORONTO, April 26th, 1919.

W. A. McLEAN, ESQ.,
Deputy Minister of Highways, Ontario.

SIR,—

Herewith I beg to submit a report on the work carried out on County Roads during the year 1918 in the Counties of Brant, Bruce, Elgin, Grey, Lanark, Stormont, Dundas and Glengarry, Victoria and Wentworth, in accordance with the provisions of the Highway Improvement Act.

All of which is respectfully submitted.

WIMUND HUBER.
Assistant Engineer.

BRANT

The second year of operation in Brant County under the Highway Improvement Act witnessed a continuation of the policy laid down during the first year, viz., the bringing of the roads of the system to a passable condition by substantial grading operations. As in many other counties, the main roads, prior to the designation of the system, had fallen into serious disrepair, and the county's problem has been mainly to improve conditions generally rather than embark on any extensive programme of heavy construction work. Preliminary grading was carried on over a large mileage, and much work done which will contribute to the final construction of the roads.

Practically all heavy grading has been done with tractors, Brant county being among the first in the Province to engage in this class of work. During 1917 the county purchased and operated two 8-16 h.p. kerosene tractors. These, while giving fair satisfaction on light trimming operations, were soon found to be inadequate for the heavier work, with the result that early in 1918 one was exchanged for a 10-20 h.p. machine. While the latter is an improvement on the smaller size, the consensus of opinion, based also on observations in other counties where larger machines are operated, appears to favour a still heavier and more powerful tractor, especially on heavy soils or where heavy cutting is desirable. Average daily operating costs of the larger outfit above mentioned have been as follows:

Fuel—15 gals. kerosene at 18c.	$2 70
Oil—½ gal. at 70c.	0 35
Operator on tractor	4 00
Operator on grader	4 00
Repairs, etc.	0 50
Total	$11 55

A day's work with the 8-16 h.p. tractor was from ¼ to ⅓ mile, while with the 10-20 h.p. machine from ¼ to ½ mile was done, depending on the season, previous condition of the road, character of soil, amount of work required, etc.

Experience with even the smaller sizes of tractors has demonstrated the superiority of this method of conducting grading operations over the employment of teams, both as regards cost of operation and work accomplished. The employment of more powerful tractors will show them up to even greater advantage.

The principal piece of road construction, in addition to the grading mentioned, was the resurfacing of approximately two miles of the Burford Road with crushed gravel. The material used was obtained at a pit recently purchased by the county and possesses extraordinary binding properties making it particularly suitable, when crushed, for road work. The gravel was not rolled, but careful attention during consolidation has left it with a uniform, though somewhat excessive, crown. Considering the heavy traffic on the road, the width of gravel, which is now approximately ten feet, might be considerably increased.

BRUCE

Construction work in Bruce County during 1918 consisted largely of concrete bridge and culvert construction, the year's work including six bridges of from 10-foot to 60-foot span and ten reinforced concrete slab top culverts. Future traffic requirements have been anticipated by constructing these with generous widths of roadway, the

culverts having 30 feet and the bridges 20 feet. The structures are all of substantial design, but their appearance is somewhat marred by a poor finish. Road construction was limited to preliminary grading and light gravelling, the greater part of the latter being intended to assist in preserving the shape of the newly graded road rather than to provide a metalled surface. Where gravel has been applied in substantial amounts, the tendency has been to deposit it in a narrow deep row in the middle of the road, leaving a ridge which the traffic seeks to avoid, rather than in a reasonably wide coat of moderate depth which traffic could more easily consolidate. Future gravelling will be performed by distributing the metal to a greater width with less depth, and applying a second course if necessary.

Maintenance and repair of county roads consisted largely in grading operations, the greater part of the work comprising the removal of sod shoulders, cleaning ditches, and otherwise improving the drainage. Some gravel was also applied in small quantities to remove ruts and depressions in the surface and make the roads temporarily more comfortable for traffic.

The greater part of the grading operations, both in construction and in maintenance, was carried on with a kerosene tractor rated at 12-24 h.p. While giving fair satisfaction on light grading and trimming operations, this tractor was found to lack the power necessary for heavy work, with the result that the purchase of larger machines is under consideration. The cost of operation of the said tractor, including operator, fuel, and an allowance for repairs, was approximately $15.00 per day. Progress was

THE PROVINCIAL HIGHWAY IN ITS ORIGINAL CONDITION.

Lack of drains to remove sub-surface water is responsible for many similar sections of road in the spring. Open drains of suitable depth and capacity should be provided.

made at the rate of from one-half mile to one mile per day, according to the condition of the road and the amount of work done.

Road construction over the greater part of the Bruce County System is largely a matter of grading, hauling gravel, spreading on the road, and keeping the surface properly rounded during consolidation, which last named operation may be cheaply and efficiently done with a road drag or light grader. In a number of cases, the gravel is so coarse as to necessitate crushing in order to provide suitable road material. While excellent gravel may be obtained in nearly all parts of the county, the distribution is such that some long hauls will be necessary, for which traction outfits should be used.

Bruce County's road organization follows closely the lines recommended by this Department. The Road Superintendent acts under the direction of a committee of three, who hold regular monthly meetings for the purpose of passing accounts and general business, and also such special meetings as may be necessary. A commendable feature of this committee is its permanent character, having been appointed to hold office during the pleasure of the county council, and not necessarily consisting of members of the council. A committee of this size and character is found much more satisfactory than a larger one, or one appointed annually. The expense to the county is less, it is more easily convened, and can move from place to place within the county with greater facility. Its permanence guarantees to the county the benefit of experience gained from year to year, and increases its value as time passes. The county's system of passing, paying and recording accounts is in accordance with the recommendations of this Department.

ELGIN

Following the policy laid down at the time of assuming the County Road System, expenditure in Elgin County during 1918 was confined to maintenance operations over the whole system, the construction of a number of bridges which could no longer be delayed, and only such road construction as was absolutely necessary.

During the year the organization, commenced in 1917, was perfected, and now follows very closely the lines recommended by this Department. The County Road Superintendent acts under the general direction of a County Road Committee of five members who meet at the call of the Chairman or of the Road Superintendent. Frequent meetings during the year, averaging two per month, enable the Committee to keep in close touch with the work, thus considerably increasing its efficiency as a committee. All accounts and pay lists, after being certified by the Superintendent, are passed by the Committee and payment made by cheque by the County Treasurer. In the case of pay lists, individual cheques, payable at par at all branch banks throughout the county, are made out to the workmen and distributed through the various foremen. This method of payment, eliminating as it does the handling of any cash by county officials or employees, is facilitated by the general distribution of branch banks in all parts of the county, and has worked out satisfactorily to all concerned.

Certain parts of Elgin County are destitute of local road material, and with a view to facilitating the distribution of gravel which occurs in large quantities in some sections, and which will constitute the principal road building material, a large pit of excellent gravel has been purchased in Yarmouth Township with the intention of transporting the gravel by rail to such districts as are not locally supplied. The county's intention is to establish storage yards at central points at which ample supplies of the material may be kept for local use. The first steps toward the development of the pit will be the erection of a storage bin, already commenced, with a capacity of approximately six carloads, and the installation of a screening plant to remove large stones and excess quantities of sand. The operation of a screening plant may be carried on at approximately the same cost as an ordinary loading outfit and will insure gravel of the proper quality, and will prevent loss through the payment of freight charges on unsuitable material.

Actual construction work in 1918 consisted mainly of preliminary grading work over a considerable mileage, some hill improvement, and the construction of six concrete bridges and thirteen concrete slab culverts. The bridges include two arches of 20-foot and 40-foot spans respectively, three beam bridges of 40-foot span and a 10-foot concrete slab bridge. A commendable feature of the culverts is their generous width, all being built with from 22-foot to 28-foot roadways. The bridges were built by contract and the culverts by day work, the county keeping a culvert-building crew continuously employed.

A system of county road maintenance has been inaugurated, which is giving good results. Approximately 75 patrolmen have been appointed for road dragging and general repair work. For patrol purposes the system is divided into sections of from two to six miles, with an average length of four miles. For work requiring more than one man or one team the patrolmen are empowered to engage extra assistance.

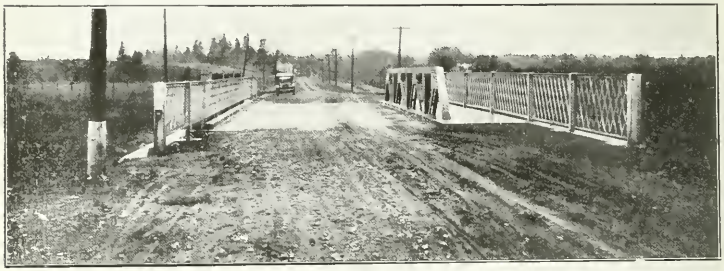
The use of the road drag has been well developed in Elgin County. Special care is given the existing gravel roads, with the result that many of them are among the best in the Province. By intelligent and systematic dragging, the majority of the roads are kept in fair condition pending their reconstruction, and the necessity for such reconstruction is in many cases deferred, enabling the county to devote more attention to the solution of its more urgent problems.

GREY

Work on the Grey County Road System was commenced in 1918, but owing to war conditions no permanent work, other than necessary bridge and culvert construction, was attempted. A good beginning was made toward securing an efficient maintenance organization, which, with the improvement which may be expected to accompany experience gained during the second season, should be capable of keeping the roads of the system in reasonably good condition pending permanent construction. A foreman has been appointed in each township to supervise all maintenance work within the township, with authority to engage such help as may be necessary from time to time. These foremen, who are held responsible for the condition of the county roads in their respective territories, have been selected largely from among the most efficient pathmasters in the several townships, and all have had more or less experience on road maintenance. The Superintendent has endeavoured to further increase the efficiency of his maintenance organization by keeping in as close touch with the work as its magnitude would permit. The County Road System is somewhat handicapped, and the work of maintenance seriously retarded, by an excessive mileage, which includes many roads which cannot be considered of more than local importance, and others which,

prior to being assumed by the county, had been badly neglected by the townships having jurisdiction over them.

A part of the maintenance on the Provincial County Road south of Owen Sound is worthy of special mention. An old gravel road, once heavily metalled, it had become badly worn, flat and rutted. The travelled surface was loosened by spiking with a roller rented from the town, the road reshaped with a grader, a small amount of new gravel added where necessary, and the whole re-rolled. Sod shoulders were removed with the grader and turned outward, and the ditches cleaned. While such work can be considered as only temporary, the great improvement to the road more than justifies the cost, which was approximately $150.00 per mile.



Steel and Concrete Bridge at Bowmanville.
On the Provincial Highway.

Except in the case of a few townships in the north, gravel, which occurs in large quantities in nearly all parts of the county, will be the only road material. Much of the gravel, however, while of excellent road-building quality, is too large and will require to be crushed. Especially on long hauls is crushing desirable, in order that the haulage shall not include the transportation of unsuitable material.

The county's organization provides for a County Road Committee of five members, selected from the county council, who meet monthly, or as occasion requires, and whose duty is to direct the Road Superintendent, who acts under their instructions, and to pass accounts after they have been certified and classified by the Superintendent.

New Bridge at Bowmanville on the Provincial Highway.

Accounts, after being passed by the committee, are paid by cheque by the Treasurer. In the case of paying workmen, cheques for the total amount of each pay list are issued to the respective foremen, who pay the men in cash.

During the season of 1918 no machinery was purchased, all work being done with equipment rented from the townships. Realizing that the best results can be secured only when the county operates its own machinery, the county purposes to make extensive purchases for the season of 1919, and construction work on an extensive scale is anticipated.

LANARK

The original County Road System, work on which was commenced in 1903, was practically completed in 1914, and a start has been made toward improvement of the additional county roads designated in 1916. The work of 1918 includes as its principal item of road construction the macadamizing of two miles of the Perth-Smith's Falls road, commencing at the easterly boundary of Perth. While the roads of the original system were all constructed without the aid of a roller, and creditable results obtained through special attention to the stone during the process of consolidation, yet the superior class of work resulting from the use of a steam roller on this section, and on a section constructed in 1917, have justified the more up-to-date methods, and have decided the county to make more extensive purchases of machinery for the coming season. While the majority of roads in Lanark County have been metalled to a width of 8 to 10 feet, the necessity for a wider road on this link connecting two main centres has been recognized, and a macadam wearing surface 16 feet wide has been laid. Stone was quarried and crushed in the immediate vicinity of the road, resulting in a short haul. The consolidated depth of stone over the whole road was eight inches or more. Including a considerable amount of heavy grading, the cost was approximately $5,785.00 per mile. One mile of macadam road, 16 feet wide, in the uncompleted gap between Carleton Place and Almonte, was also constructed at a cost of approximately $3,500.00.

THE OLD BRIDGE AT BOWMANVILLE.
Replaced by the steel and concrete structure shown on the opposite page.

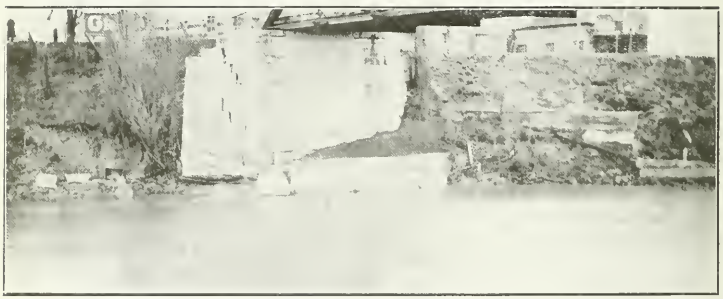
The other large item of expenditure was the construction of a bridge over the Mississippi River at Lot 7, Concession XI, Drummond Township, known as McIlquham's Lower Bridge, at a cost of $25,200.00. The total length of the structure is 339 feet between abutments, divided into eight steel girder spans of approximately 42 feet each on piers 14 feet in height. The river at this point is shallow and runs over bedded limestone, affording an excellent foundation for the piers.

Lanark County System includes approximately 100 miles of road already surfaced, and a patrol crew, devoting the greater part of its time to maintenance and resurfacing, has been organized. As many of the roads have not been subjected to severe traffic conditions, the use of a roller on these roads either in construction or maintenance has not been considered necessary. The method of resurfacing consists of applying crushed stone, either quarried limestone or fieldstone, depending on the local supply, 1½ inches or less in size, spreading on the road and carefully maintaining the crown and filling any ruts which may develop by means of raking or dragging. Earth shoulders are trimmed and the ditches cleaned at the same time. The county's policy is to do this resurfacing work before the road has worn to such an extent as to necessitate reconstruction. The cost of work carried on by this crew usually varies from $700 to $1,250 per mile.

Minor repairs and grading and dragging on roads not reached by the resurfacing crew are carried on by an organization of 66 patrolmen who devote to the work such time as may be required, giving special attention to emergency repairs. The average patrol section is from 4½ to 5 miles in length.

STORMONT, DUNDAS AND GLENGARRY

The season's work in the United Counties of Stormont, Dundas and Glengarry consisted principally of substantial grading and preliminary surfacing with crushed stone or gravel. A large part of the county road mileage consists of roads which have never been metalled, or on which the surface has become so worn as to constitute practically earth roads. On approximately 30 miles of such roads, selected from among the worst sections on the system, after careful grading, a course of crushed fieldstone 9 feet wide and 6 to 8 inches deep was placed, the greater part being finished by rolling. Work of this kind is not considered as final, but is intended to serve as a foundation for future construction. While done at a comparatively low cost, the condition, in the early spring of 1919, of a number of the sections treated as described indicates that they have successfully withstood a winter notable for its severe effects on roads in general. The average cost of the aforementioned work, nearly all of which was done by contract, using local fieldstone, was approximately $2,500 per mile on the less important sections where no rolling was done, and $3,500 per mile for rolled and waterbound road. Gravel was used on one three-mile section, the cost being about $2,000 per mile. The cost of grading and ditching is included in each case.



A Permanent Superstructure on Temporary Foundation.
This stone bridge abutment is characteristic of many bridge abutments, in that the foundation was not carried to a sufficient depth, and has been undermined.

Work on the Provincial County Road partook of the nature of heavy maintenance, consisting of grading and the application of a light course of crushed stone.

Apart from a dozen standard graders, used largely for maintenance purposes, and a number of drags, purchased in 1918, the counties own no road building equipment, and with the exception of two short sections, built with rented machinery, construction work was carried on by contract. For this reason relative costs of contract work and day work are not available. To obtain an intelligent comparison between the two methods, it is desirable that the counties purchase a number of complete outfits and operate them under conditions as nearly as possible similar to those under which contract work is being carried on.

Bridge construction included the erection or completion of eight concrete beam spans of from 10 to 32 feet, and one 80-foot steel truss on concrete abutments. In the case of the concrete bridges, more care in the placing of the concrete would have resulted in a much improved appearance at practically no extra cost.

The organization for maintenance provides for a foreman in each township, twelve in all, who is given a general oversight over all maintenance work within his territory, with authority to engage assistance as required. Each foreman is supplied with a grader and a number of road drags, and a special effort is made to go over all the county roads in his section at the earliest opportunity in the spring, and to drag the roads as often as possible thereafter as may be necessary. With the object of bringing the foremen into closer touch with each other, familiarizing them with their work,

and securing uniformity of results, a conference was held in March, 1918, along similar lines to those of the annual conference of County Road Superintendents conducted by the Department of Public Highways. The subjects presented and discussed were those of special interest to the men assembled and included: "Road Improvement in Ontario"; "Types of County Roads"; "County Road Maintenance"; "Time Keeping and Reports." The interest manifested in the conference and the results obtained were such as to justify the suggestions of similar gatherings in other counties.

Local conditions in these counties present two problems: narrow road allowances, and lack of drainage; and in many localities road construction to a satisfactory standard must be preceded by a widening of the road allowance, or by drainage operations under the Municipal Drainage Act, or both. Some progress has already been made toward having farm fences set back to give a width of at least 66 feet. In many instances the additional land required for the full width has been given to the county free of charge; in others, an agreement has been made to move the fences within a given number of years, or when they require renewal; while in the most obstinate cases, expropriation will be necessary.

Full advantage has also been taken of recent legislation permitting the County Road Superintendent to institute proceedings under the Ditches and Watercourses Act, and a number of minor drainage difficulties have been met in this way.

Under the counties' organization, the Road Superintendent acts under the direction of a County Road Committee of seven, selected from the standing committee on Roads and Bridges of the County Council. Under such an arrangement the Committee is assured of no degree of permanence, and planning of a continuous programme in advance, covering a number of years' operations, is impossible. Greater continuity of work, and more successful results generally, would doubtless be obtained by having at least part of the County Road Committee composed of permanent members, not necessarily members of the County Council.

The system of keeping and paying accounts employed by the Road Superintendent and County Treasurer follows very closely that recommended by this Department.

VICTORIA

The Victoria County Road System, work on which was commenced in 1917, included a large mileage of badly neglected and worn out roads and the county's principal object during the first and second seasons has been to bring the worst portions of the system to a passable condition. To that end, practically all the work during 1918, apart from a limited amount of permanent culvert construction, consisted of preliminary grading, removal of earth shoulders of badly worn roads, opening of ditches, straightening the roadway, widening the grade on a number of sections where the existing width was insufficient for safe travel, and a considerable amount of hill improvement by means of grade reduction and widening of fills. Small quantities of gravel were also applied to preserve the surface of the newly graded road. All work of this character was carefully planned with a view to making it fit into, and reduce the expense of, permanent work which it is hoped may be undertaken in the near future.

The labour shortage during the past three years, general over the entire Province, appeared to be intensified in Victoria County, with the result that the year's programme was necessarily curtailed, but in spite of adverse conditions $12\frac{1}{2}$ miles were graded and $6\frac{1}{4}$ miles gravelled in the above manner.

WENTWORTH

Practically the entire County Road System in Wentworth County as originally designated has been improved under the Highway Improvement Act. The construction work of 1918 consisted for the most part in improving work formerly done, or the reconstruction of a number of sections whose original construction, by reason of increased traffic, has proved too light.

The year 1918 saw the first operations on a Suburban Area about the city of Hamilton, and some preliminary work was done in preparation for the later construction of more permanent types of road within the area. One of the principal pieces of work done during the season was the resurfacing of a portion of the road between Hamilton and Dundas. The old surface, which had become very flat, rough and rutted, was scarified and reshaped with a grader, and a layer of new stone 16 feet in width and approximately 6 inches thick applied and waterbound. This work was done at a cost of approximately $4,000 per mile. Subsequent observations showed that this road, although very substantially constructed, could not withstand the disintegrating effects of the very heavy traffic, but will make an excellent base for a bituminous macadam surface to be applied at an early date.

Another piece of substantial construction work was the construction of a concrete gutter 3 feet wide and 270 feet in length with catch basins and culverts, with a view

to providing adequate surface drainage on that part of the Town Line known as the Clappison Mountain. Previous to the season of 1918 water running down the roadside had caused heavy erosion of the ditch and, to some extent, of the road. The ditch was first filled with large stones on which a six-inch layer of concrete was placed and struck off to a circular cross section. Two catch basins with culverts to carry the water across the road were also constructed. This work, which is preparatory to the reconstruction of the road with some durable type of surface, was carried out at a cost of about $2,900.

Other work of road construction includes a considerable amount of work on the Town Line Road, designated as a Provincial County Road, consisting largely of scarifying the old surface, re-shaping, and the addition of new stone. A number of short sections of waterbound road were also laid at different points on the system.

In general, the roads of this system have been graded to a good width. The increasing demands of traffic are recognized in the county's policy of metalling all main roads to a width of 16 feet, and in the construction of all culverts and small bridges to allow for a roadway of at least 22 feet.

One concrete bridge of 17-foot span and a number of concrete slab culverts were also constructed during the year, noticeable features of which are their generous width as above stated, and an excellent finish which adds greatly to their appearance.

TORONTO, January 8th, 1919.

W. A. McLEAN, ESQ.,
Deputy Minister of Highways, Ontario.

SIR,—

I have the honour to submit a brief report on the work carried out on County Roads during the year 1918 in the Counties of Dufferin, Frontenac, Haldimand, Leeds and Grenville, Lincoln, Peel, Welland, Wellington and York, in accordance with the provisions of the Highway Improvement Act.

Throughout the year several special visits were made at the request of the County Councils and the County Road Superintendents, when matters of special importance were being considered. The assistance and advice of the Department in such cases appeared to be very much appreciated by the members of the Councils.

On account of the scarcity of labour very little permanent work, other than the construction of necessary bridges and culverts, was carried out by the above named counties. All available labour, in nearly all cases, was utilized in keeping the roads in a passable condition. This policy will no doubt be continued, pending the return to normal conditions. When more favourable conditions exist, there is no doubt that work of a very extensive nature will be carried out in all counties. In some counties work of the nature of extensive hill cutting and grading, after being well under way, had to be abandoned on account of labour shortage.

There is a tendency in the counties operating under the Highway Improvement Act to construct roads of a more permanent type, the depth, the width, and the type of road surface to be constructed being the chief topic of interest in the road question throughout the Province.

It is very gratifying to report that on many township roads a marked improvement in method of construction is to be noted, following upon a better understanding of the principles of road-making.

Respectfully submitted,

ROBT. C. MUIR,
Assistant Engineer.

DUFFERIN

The County of Dufferin adopted a County Road System in December, 1917. The system comprises 179 miles, or 16.7 per cent. of the total road mileage in the county.

Construction work of 1918 comprises the erection of two cement concrete bridges, one 50-foot span and one 14-foot span, nineteen tile culverts varying in size from 12 to 36-inch diameter, together wtih road widening and hill cutting in several places.

Corrugated iron pipe culverts were laid in all cases, concrete tile being used only to lengthen existing concrete tile culverts.

Maintenance work consisted chiefly in filling holes and resurfacing with gravel, which work was carried out with the assistance of farm help.

The work on the Provincial County Roads, on which the Government subsidy is 60 per cent., consisted only in resurfacing with gravel in places where required.

The County at the present time has no machinery necessary to carry out extensive construction work.

The County Engineer and Road Superintendent is Mr. U. W. Christie, Orangeville.

FRONTENAC

During 1918, $3\frac{1}{2}$ miles of stone road were constructed and approximately 6 miles of road graded to a width of 24 feet, a large part of the grading being rock cutting. Three concrete slab bridges were constructed, two 10-foot span and one 14-foot span with a 20-foot clear roadway. Numerous concrete tile culverts were laid where required, varying in size from 12 to 24-inch diameter and from 24 to 60 feet in length. In several places the roadway has been widened and straightened and grade reduced, thereby creating a much needed improvement, but much work of this nature has yet to be done. Special attention is now being given to ditching and drainage facilities, which will undoubtedly improve the roads in this county.

Extensive repair work was carried out on many of the most important roads, consisting mostly in resurfacing with crushed limestone. At the present time, there is no systematic method of maintaining the roads, but the Road Superintendent has been endeavouring to impress on the Council the importance of this work, in order that some system may be carried out during the coming year. Trimming along the edges of the stone surface and cutting down the comb that forms along the shoulders, caused by motor cars sweeping loose material to the sides, have been found very beneficial to the stone roads. This allows the surface water to get to the ditches quickly and prevents the surface from becoming rutty. The work is done by the grader, drawn by a steam roller.

The work carried out under the Kingston Suburban Roads Commission consisted chiefly in the erection of two concrete bridges, one 10-foot span and one 14-foot span, as above described, and in ditching and placing concrete pipe culverts and resurfacing with crushed stone where necessary in preparation for more permanent roadway construction. The work was carried out by an organized gang.

Several of the roads under the supervision of the Commission had a surface treatment of tar and sand, all depressions being first filled with a mixture of tar and stone chippings and well tamped into place. The cost of this work was approximately $600.00 per mile for a width of 12 feet. This class of work has been found very satisfactory.

During the latter part of the year the Provincial Government took over eight miles of road within the Suburban Area as a Provincial Highway, which has reduced the mileage of roads under the Commission to 52 miles. The majority of the roads under the Commission bear heavy and fast traffic, and to meet these demands a more permanent type of surfacing is contemplated by the Commission in the near future.

During the year a small concrete mixer was purchased at a cost of $306.00 by the County to carry out the work of erecting concrete culverts and small bridges. All of this work is done by day labour and is very satisfactory.

The County Road Superintendent is Mr. R. H. Fair, Kingston.

HALDIMAND

An extensive programme of grading work was carried out during the year by the County. Approximately 80 miles of road were graded to a width of 24 feet, at an average cost of $100.00 per mile. Eight outfits were employed on the work, 10 miles to each outfit. The work was done by the use of tractors, two belonging to the County and six rented at a cost of $1.50 per hour, exclusive of fuel. Throughout this 80 miles of road, a large number of culvert tile culverts, varying in size from 12 to 24 inch diameter and from 16 to 28 feet in length, were placed where required across the road and at farm entrances. A few corrugated iron pipe culverts were also used. On the whole, this work was very satisfactory, and was carried out in view of preparing for the laying of waterbound macadam roads during the coming season. The work was chiefly carried out in a very heavy clay subsoil.

While the majority of the clay roads were kept in a fair state of repair by dragging, a few of the existing stone roads were resurfaced for approximately five miles in length. On one road, with a haul of eight miles, a steam tractor hauling a train of six dump cars, each with a capacity of $3\frac{1}{2}$ cubic yards, was used to convey the crushed stone from the quarry to the road. Approximately two miles of stone road were given a surface treatment of tar and stone chippings, the depressions being first filled with tar and stone chippings. The quarries belonging to the County were not in operation during the year, but it is hoped, now that the war is over and labour more plentiful, that these will be working during 1919, when an extensive road surfacing programme is to be carried out according to plan.

Speed sign posts have been erected by the County at seven points along the roads.

The County Road Superintendent is Mr. D. W. McBurney, Hagersville.

LEEDS AND GRENVILLE

During the year several important extensions of the system were approved, thereby connecting up the system and providing greater continuity. There are, however, still many disconnected links which must be added before the county can have a well balanced County Road System. With these extensions, the road mileage under the system is now 322 miles, which is approximately 18 per cent. of the total road mileage in the County.

The Brockville-Prescott Toll Road was purchased in 1917 by the County at a cost of $9,000.00. Five and one-half miles of stone road, 9 feet wide, were constructed and seven miles graded to a width of 24 feet. Nine concrete box culverts varying in size from 3 to 10-foot span, were built and also numerous pipe culverts laid. Resurfacing with broken stone was carried out on many of the existing stone roads.

Much work in the nature of widening, straightening the road and reducing grades has been carried out, the grades in several places being reduced from 14 to 6 per cent. A great deal of contemplated work in this county was, however, incompleted, owing to scarcity of labour.

Maintenance, as carried out not only in this county, but in the majority of other counties, is not satisfactory; a more systematic method of carrying out repairs is

Hill-cutting Through Rock in Lincoln County.
The grade is being reduced, and the excavated stone crushed for use in the road surface.

absolutely necessary. In those counties where stone is easily obtained, it should be crushed and placed in piles at intervals along the road-side so that a patrolman can apply the stone when and where required. On the completion of new stone roads, a surplus of stone is always desirable, and this can be piled along the road-side ready for future repairs.

The County Engineer and Road Superintendent is Mr. E. R. Blackwell, Brockville.

LINCOLN

During the latter part of the year the Provincial Government took over that part of the Queenston and Grimsby Stone Road within the county as a Provincial Highway. This road, extending across the county from the American frontier, carries an exceedingly heavy and fast foreign traffic. It was the first road designated by the County as a County Road under the Highway Improvement Act, 1904. The Government in acquiring this road as a main highway relieves the County of a large annual expenditure, approximately $36,000.00 being expended by the County during the past year.

In 1918, extensive grading was carried on as in 1917, approximately 53 miles of road being graded to a width of 24 feet to 28 feet. Lincoln County has paid special attention to this class of work since extending the system in 1916. The majority of the roads when taken over were narrow and in an unimproved condition. This work includes the reducing of grades, widening and straightening the road. A gasolene tractor is used in hauling the grader in breaking up the earth and finishing to proper grade, the earth being first turned over with a plough. For grade reduction in earth, slush scrapers are used in short hauls and wheel scrapers in longer hauls. This work is very creditable to the County, and might be copied by other counties with advantage. The elimination of dangerous curves and the reduction of grades are essential to all county roads.

In addition to the above-mentioned grading, one mile of tar penetration macadam and two and one-half miles of gravel roads were constructed during the year. The gravel was used on sand roads, which were impossible to compact. With the addition of the gravel a good and well compacted surface has resulted. Fourteen concrete box culverts, varying in size from 3 to 10-foot span were built; also a large number of pipe culverts laid, ranging in size from 12 to 24-inch diameter. Corrugated iron pipe culverts were used throughout the work. Wherever a pipe culvert is required at farm entrances, the County bears the entire cost of putting the same in place.

On one road where the work of reducing the grade was in rock, the stone taken out was put through the crusher located close by, and placed on another section of the road.

The county now owns an extensive plant, all work being carried out by day labour. A gasoline tractor 16-32 h.p., similar to the one already in use, was purchased at a cost of $2,650; a stone crusher complete, 100 cubic yards capacity per day, at a cost of $3,500; a one-ton Ford truck, $845; a horse-drawn broom, $300; these together with a large number of scrapers, ploughs, graders, etc., were the chief units of machinery purchased during the year. The Ford truck is used chiefly for conveying small quantities of materials to the work where required and is found very useful.

With a view towards carrying out extensive surfacing during the coming season, a stone quarry in the vicinity of Smithville, 5¼ acres in extent, was purchased by the county at a cost of $600.00.

The townships within the county are doing very creditable work under the present labour conditions; this is very noticeable in the back townships, where, prior to the county extending its system in 1916, very little work was carried out. The work is chiefly grading and gravelling. The tendency in these townships is to widen the grade to 24 feet.

During the coming season, it is the intention of the council to construct a large mileage of tar penetration macadam roads; 16 feet in width. The council has adopted a standard width of 16 feet of metal surface for all County Roads.

No work was done on the roads under the St. Catharines Suburban Road Commission in the past year.

The County Road Superintendent is Mr. Peter Robertson, Beamsville.

PEEL

Construction work has been greatly retarded in this county during the past year owing to the scarcity of labour. The majority of the work started throughout the year was left incomplete. The construction work consisted chiefly in cutting down grades, widening and straightening the road, laying a substantial sub-base of gravel. A large number of corrugated iron and pipe culverts were placed across the road and at farm entrances, where required. In the case of tile culverts at farm entrances, the whole cost is borne by the county.

The work on the Provincial County Roads consisted in some places in scarifying the existing stone surface, adding fresh stone and consolidating the whole. At one place the grade was reduced from 9 to 6 per cent. and widened to 28 feet between ditches. Numerous pipe culverts were laid across the road.

During 1918, the County Road System was extended from 127 to 140 miles, being approximately 16 per cent. of the total road mileage in the county. Approximately eight miles of road designated in the past year are on the county boundary and half the cost of the upkeep of such will be borne by the adjoining county.

On the return to normal conditions this county contemplates pursuing an extensive programme of work on its Provincial County Roads.

The County Engineer and Road Superintendent is Mr. C. R. Wheelock, Orangeville.

WELLAND

During the past year, twenty-four miles of road were added to the system, making a total length of 184 miles, or approximately 16 per cent. of the total road mileage.

The construction work throughout the year consisted chiefly in building a large number of box culverts, varying in size from 3 to 6 foot span, and the building of approximately three miles of water-bound macadam road. Numerous concrete tile culverts were laid across the road and at farm entrances. Approximately eight miles of stone road were re-surfaced with crushed stone three inches in depth. During the year, the three outfits were constantly employed on the roads, either in construction or repair work, with the result that a large mileage of roads were lightly re-surfaced and put into good shape. Throughout the year a large mileage of road was given a light surface treatment of bituminous material and sand. In some places tar was used, in others a light asphaltic oil. The results obtained from this experiment proved that the light tar was more satisfactory than the oil. In view of such variations in asphaltic oils, it might be desirable for the counties intending to use the same to have the oil tested at the Department's laboratory before use in the road. Otherwise it will be

INSUFFICIENT DRAINAGE.

Showing the effect of water and frost on an insufficiently drained macadam road.

a difficult matter for the Superintendent to knew whether he has obtained a 40 per cent. asphaltic oil or not.

Several units of machinery were purchased during the year. These were: a 3-ton motor truck at a cost of $4,875.00; an oil heater and pressure distributor, 500 gallons capacity, at a cost of $1,055.00; a horse-drawn sweeper, $490. The oil distributor was found to be very satisfactory in every way. The motor truck, which was used for hauling stone from the quarry to the road, was not satisfactory, being in the repair shop most of the time. On work of any great extent, one truck is not sufficient if good results are to be obtained; three trucks at least should be employed on hauls up to ten miles.

A large shed, together with the land, was purchased by the county for the purpose of storing machinery during the winter months. The lot, approximately 100 feet square, was purchased for $1,510.00 and is located in the City of Welland, a central point in the county.

Speed sign posts were erected by the county during the year on several of the main roads.

The County Superintendent is Mr. W. W. Brookfield, Welland.

WELLINGTON

Permanent work during the past year consisted chiefly in building concrete bridges and culverts, and the laying of numerous tile culverts. Ten bridges, varying in span from 12 to 80-foot and six culverts of 3 to 10-foot span were built. Concrete tile and corrugated iron pipe culverts were placed where required. These varied in size from 12 to 36-inch diameter. No concrete tile are used over 18-inch diameter, as these have been found to be unsatisfactory. With respect to tile culverts at farm entrances, the county pays for the tile and the farmer hauls them from the factory and lays them in place.

The Irwin Bridge was the most important work carried out during the year. This bridge replaced an old timber structure. The type of bridge constructed is an overhead concrete arch truss of 80-foot span. It is built to conform with the Department's specifications for a Class "C" bridge, having a 20-foot clear roadway. It was the first bridge of this type to be constructed in the Province of a span of 75-foot or more. The cost of this bridge was approximately $10,300.00. Numerous smaller spans of this type of bridge have been constructed throughout the county, and are found to be very satisfactory. The county has paid particular attention to the bridges, and a large sum of money has been expended annually in erecting bridges and culverts, with the result that at this date, the county can go ahead and construct a large mileage of roads without being inconvenienced with the building of bridges.

Work of the nature of widening and raising the road was carried on at several places. At one particular place, a fill of approximately twenty-one feet was necessary in widening the road through a swamp, brush, field-stone and gravel being added from time to time, as it was found that as soon as the dead load was put on the existing road-bed the fill settled. On a length of 1,200 feet, approximately $2,700.00 was expended at this spot, and it is doubtful yet whether a stable road-bed has been obtained.

On several sections of road, varying in length from 600 to 2,000 feet, a surface treatment of tar and sand was applied. This work was not the nature of the usual carpet coat, but was an endeavour to build up a worn-out macadam road with the aid of tar and pea gravel. A part of this work had the writer's personal supervision, and the method of procedure was briefly as follows: The road surface was thoroughly cleaned and hot tar then applied at the rate of one-half gallon to the square yard. This was then covered with sand. On these sections of road, the stones in the surface projected about one-half inch; this carried the traffic and prevented the thick mat of tar and sand from being picked up. In the places where a second treatment of tar and sand was applied, a smooth and compacted surface has resulted. This work is very satisfactory and the method might be adopted in other places, where the county does not wish to bear the expense of re-surfacing with a heavy coat of stone. On two places, where the large stones in the road were very prominent, it was found that a coat of gravel applied was soon swept away by the traffic and weather. The road at these points was composed of very hard flinty rock. Here it was necessary to apply tar at the rate of three-quarters of a gallon to the square yard; this was covered with $2\frac{1}{2}$ inches of gravel. It is interesting to know that, though a part of the gravel was swept away, a smoother surface than formerly has resulted.

The work under the supervision of the Guelph Suburban Roads Commission was chiefly shaping the road and re-surfacing with gravel in places, together with the laying of pipe culverts. It is the intention of this Commission to purchase at an early date an outfit of its own to carry on the work. In the vicinity of Guelph it is very difficult to obtain teams and labour.

The chief items of machinery purchased by the county during the year were a tar kettle of two-barrel capacity at a cost of $212.00 and a horse-drawn sweeper at a cost of $444.00.

The County Road Superintendent is Mr. John M. Young, Harriston.

YORK

During the year, four different types of surfacing were laid, these being water-bound macadam, tar penetration, asphaltic concrete and cement concrete. Asphaltic concrete and cement concrete surfaces were laid on sections of road near the limits of the City of Toronto, these roads carrying a traffic almost equal to city traffic. Asphaltic concrete surface, two inches thick, was placed on a well-consolidated crushed stone base, 8 inches thick, for a width of 22 feet. Approximately eight-tenths of a mile of this surfacing were laid. Reinforced cement concrete surfacing, 8 inches thick and 22 feet wide, was laid on the Weston Road, from the limits of the City of Toronto, northerly 1,300 feet. On upper Yonge street, in the vicinity of Aurora and Newmarket, 2.6 miles of tar penetration surfacing, 18 feet wide, were laid on a 5-inch crushed stone base. On several roads, approximately five miles of water-bound macadam surface, varying in

width from 7 to 24 feet, were constructed. Approximately one mile of crushed stone base, 6 inches thick, was laid in preparation for a tar penetration surface and six and one-half miles of road graded to a width of 27 feet.

At several places, work of extensive hill cutting, widening and straightening the road was carried out. In places the grade was reduced from 12 to 5 per cent.

Four concrete bridges of spans from 10 to 15-foot and thirty-five concrete box culverts, 4 to 8-foot span, were constructed, together with a large number of pipe culverts with concrete end walls.

A large mileage of stone road was given a surface treatment of tar and sand.

With the exception of two one-ton second-hand Ford trucks at a cost of $350.00 each, no new machinery was purchased during the year. The majority of the work in this county is carried out by contract.

The Engineer to the Toronto and York Roads Commission is Mr. E. A. James, Toronto.

TORONTO, January 30th, 1919.

W. A. MCLEAN, ESQ.,

Deputy Minister of Highways, Ontario.

SIR,—

I have the honour to submit a report of the work performed on the county roads of Essex, Kent, Lambton, Norfolk, Waterloo, Hastings, Prince Edward, Lennox and Addington and Renfrew, during the season of 1918.

As you are aware, the necessity of successfully prosecuting the war had resulted in stripping the country of all available sources of surplus labour; consequently all road work was necessarily much restricted, only construction work of an imperative nature, such as replacing worn out culverts and bridges, being undertaken, and in addition whatever maintenance work could be done during the farmers' slack periods.

Respectfully submitted,

ARTHUR SEDGWICK,
Assistant Engineer.

ESSEX

The same work commenced in 1916 was continued during 1918. Old timber culverts over the municipal drains are being replaced by concrete structures with roadways about 22 feet wide. In addition, two bridges of 90 and 50 feet span were constructed at a cost of $10,912.73.

The feature of the work in this county is the system of maintaining the clay roads, which comprise the major portion of the county's mileage, by the consistent use of the "split-log drag," or its modern modification built entirely of steel. Under the statute labour system, the roads were usually "scraped" once or twice in the early spring with road graders provided by the townships. Nothing further was done in this respect during the later spring and summer months; consequently the beneficial results secured in the spring only lasted until the next rainfall and these clay roads usually continued in a rough, rutty condition for the balance of the year. Now, under the County Road System, this has all been changed and traffic conditions on these clay roads have been vastly improved. A proper patrol system has been established and each stretch of road from two to four miles in length is put in charge of a foreman whose chief business at present is dragging the road after every rainfall.

While it must be admitted that clay roads are very disagreeable and unsatisfactory to use in wet weather, yet by keeping the roadway crowned and smooth in dry weather more water is shed off the road so that the mud does not get so deep and dries up more quickly than it otherwise would. The secret, of course, is in getting men who will take both the time and interest to insure the road being dragged after every rain, otherwise there will be only dissatisfaction on the part of the travelling public.

One hundred and forty-two miles of road were dragged at a total cost of $4,863.39, or $34.25 per mile.

KENT

Kent County has been operating under the Highway Improvement Act for two years. In the north and west of the county, conditions are much the same as in North Essex and the work carried on here is similar to that outlined in Essex. Numerous concrete culverts and short bridges have been built and a patrol system established for dragging and other maintenance work. Three hundred and thirty miles of road were kept dragged during the season at an average cost of $40.50 per mile. Several gravel pits have been purchased, convenient to the roads in the southeastern part of the

county, which will be used for construction and re-surfacing in the future when the conditions of the labour market are more favourable.

Some seven thousand dollars was spent in re-surfacing, mostly of a light nature, wherever it was possible to get it done.

The winter of 1917-1918 being exceptionally severe, it was necessary to spend some money both in Essex and Kent for snow removal. This expenditure has been of very rare occurrence in these southern counties.

LAMBTON

This was the first year for Lambton County to operate under the Act. As soon as the Superintendent was appointed, steps were taken to secure a proper organization for the systematic dragging of the clay roads. The results obtained were gratifying, but taking the system as a whole, including some mileage of sand roads, the money spent for grading and dragging averaged only some $17.00 per mile. This no doubt will be exceeded next year when a full organization working for the full year is secured.

Bridges and culverts comprised the more important construction work, about $20,000 being expended thereon. In addition, a mile of new road was opened up, graded and gravelled adjoining the city limits of Sarnia, and giving a more direct outlet to what is known as the Lake Road.

A Gravel Road in Lambton County.

When one surveys the conditions which have prevailed in these three counties in the past and compares them with what is and can be done under the Highway Improvement Act, one must be impressed with the benefits to be derived therefrom.

A conservative estimate of the amount of statute labour spent on these roads in the past might be taken as $100.00 per mile per year. Against this we have a maximum of $40.00 per mile for maintenance under the Act, or about $32.00 for the county's share with vastly improved results. The balance of $100.00 with the 40 per cent. grant from the Government will provide an additional $100.00 per year for permanent construction work.

With the return of normal conditions resulting from the termination of the war, and with increased funds not beyond the ability of the farmer to pay, surely brighter prospects are ahead for those who have so long accustomed themselves to being "stuck in the mud."

NORFOLK

This was also the first year for Norfolk to operate. Conditions here vary greatly, varying from stiff clay to deep sand. Until they can be gravelled or macadamized, little can be done to improve the sand roads. A large proportion of the gravel and clay roads were improved by cutting off the shoulders and in some cases a system of dragging was commenced. In such a county, where clay roads are the exception instead of the rule, it was not to be expected that the "dragging" would become the general practice as readily as in the counties previously mentioned. A little re-surfacing work

was done on the Provincial County Roads and some eleven thousand dollars spent on bridge and culvert construction.

As there are no large amounts of local material easily accessible to the county roads, very little actual road construction could be done while the war lasted. The county has, therefore, very wisely confined itself to making such preparations as it conveniently could towards the time when road building of a systematic and continuous nature could be undertaken.

HASTINGS

The work in this county for some years has consisted of the re-surfacing and cutting off of shoulders of old gravel roads constructed years ago as a county system. This system was established about sixty years ago before the country was properly served by railroads. At that time it will readily be appreciated that such roads would be most important factors in the economic life of the country and we may safely assume that they were built and maintained with all the enthusiasm and energy that their importance demanded. With the ushering in of the railroad era, whereby shipping points were brought reasonably close to the farmer, the traffic on the county highways diminished in volume and assumed a purely local character. Under such conditions it was a simple and inexpensive matter to maintain these roads in a manner suitable to the needs of local horse-drawn traffic. The roads, however, were retained under county control and maintained as a county charge, not that the county, as a whole, was vitally interested in the respective roads, but simply because such a system had become established. The roads being easy to maintain and not a serious financial burden on the ratepayers, we can picture to ourselves the County Council merely setting aside a nominal sum each year for the maintenance thereof.

Then came the time, about 1908, when all the old wooden county bridges, having served their natural life, began to fail at an alarming rate. An annual levy was no longer equal to the burden of replacing them as fast as needed and the county had to commit itself to a large debenture debt for this purpose. One can readily understand then that what little public interest in road-building that formerly existed was diverted to what became the burning question of county bridge construction. The interest and sinking fund charges on these debentures became an important part of the county taxes.

About this time the automobile began to make itself felt in the county, very unobtrusively at first, but soon in such numbers as to become a serious factor in the cost of road maintenance. Commodity and labour costs were mounting steadily and the roads began to depreciate noticeably, especially in the south, but no appreciably increased appropriation was made for maintenance. We might safely assume that the roads had largely deteriorated before the County Councils had recognized that greater efforts and expenditures were required to meet the changed conditions that had arisen.

Then came the war which multiplied the traffic on the roads and inflated prices so that a dollar for maintenance would only go half as far as before. The destruction of the roads in the southern portion of the county, with its denser population and traffic, has been most noticeable during the last three or four years. On the main roads, bearing the heaviest traffic, the destruction has become so complete that the problem has resolved itself from road maintenance to one of reconstruction.

To meet this problem, the County Council during the coming years must recognize that greater efforts and different methods will be required in the south from those in the north with its sparser population and vastly lighter traffic.

There was spent on grading and re-surfacing during the season of 1918 some $40,000. It is noticeable that bridge building costs have gradually dropped during the last seven years until they are now almost negligible.

WATERLOO

This county has been operating under the Act for a number of years. In the central and southern portions, in which are situated the prosperous cities and towns, the denser traffic conditions have created a demand which has been met by an energetic and quite progressive road-building programme. In the outlying portions of the county, however, the roads have not been maintained or improved in a manner which the availability of road-building material and the prosperous character of the countryside would suggest. A considerable amount of money is spent for re-surfacing the roads in these parts, but there seems to be little demand for a proper maintenance system and the grading and gravelling in many instances have not been finished in the manner required by modern traffic conditions.

The organization in this county is established on strictly township lines, all work, however, being under the control of a Superintendent appointed by the County Council. This is regrettable, as the traffic existing on most of the roads by no means originates

solely from within the municipality in which the respective roads are situated. This necessarily has resulted in a disproportionate neglect which the collective interests of the county at large does not warrant.

A re-designation of the county roads is required, as in some cases the roads already assumed are not those carrying the heaviest traffic. Needless to say, however, the demand for the amelioration of the conditions must necessarily first come from within the county itself.

As already stated, in the townships surrounding the urban centres a better feeling apparently exists and some attempt is being made to keep pace with the ever-increasing traffic demands. The use of Tarvia for re-surfacing is being resorted to more and more on the roads leading out of Kitchener, Galt and Preston.

PRINCE EDWARD

The work in this county last year has consisted chiefly of re-surfacing the stone roads constructed some years ago. The limestone road used in Prince Edward has a tendency towards shaliness and therefore soon wears into ruts and depressions. The rock being soft, new material is easily bonded into place with the roller, usually without the necessity of picking up or scarifying the old surface.

Closer in towards Picton, where traffic and the consequent wear have been heavier, re-surfacing of a more substantial nature has been done.

Renfrew County Road Work.
Hill-cutting through rock, and widening an existing stone road.

Some grading has been done on the Provincial County Road leading from Picton to the Northumberland boundary. The quarter mile link at the old Carrying Place between Northumberland and Prince Edward has been graded and straightened.

A grant of $1,402.51 was made to the Town of Picton for draining and macadamizing.

LENNOX AND ADDINGTON

In this county, as in most of the earlier counties to operate under the Act, last year's activities were restricted to keeping the roads in a reasonable state of repair during the war. With the depreciating value of the dollar, increasing scarcity of labour supply and increased usage of the roads all caused by the war, the results obtained have not in every case kept pace with the requirements. Deducting some three thousand dollars for special grants the amount for construction and maintenance on the County Road System, comprising about one hundred and seventy miles, was $18,053.43, being an average of about $106.00 per mile. With the present high prices this amount is not sufficient to take care of the ordinary annual wear and tear on the roads and, as in the neighbouring counties, the coming of peace will require a re-awakened road-building campaign in order that the result from earlier construction be not lost entirely.

RENFREW

This was the first year for Renfrew to operate under the Act. Renfrew County was one of the later counties to be cleared and settled and consequently there is great scope for road-building enterprise. It was not expected that much more than organization work would be accomplished the first year. A start, however, was made on replacing old wooden bridges and culverts, hundreds of which are in existence and are rapidly becoming a menace to the travelling public. In addition about six miles of grading was done and some re-surfacing also. Nearly eleven thousand dollars was spent on bridge and culvert construction and grading, and between eight and nine thousand on maintenance, chiefly re-surfacing and bridge and culvert repairs.

TORONTO, January 15th, 1919.

W. A. McLEAN, ESQ.,

Deputy Minister of Highways, Ontario.

SIR,—

I have the honour to submit a summary report on the improvement of the county roads in the Counties of Prescott and Russell, Carleton, Ontario, Simcoe, Halton, Perth, Oxford, Middlesex, Huron, and Northumberland and Durham, for the year 1918, according to the provisions of the Highway Improvement Act.

In addition to the regular Departmental inspection, a number of special visits were made during 1918 at the request of the County Road Superintendents.

During the year labour and financial conditions had the tendency to decrease the amount of construction throughout the various counties, but preparations have been made to embark on an extensive programme of road improvement in the period of reconstruction in the above mentioned counties.

Visits were also made to the various township municipalities in the above mentioned counties where a Township Road Overseer was appointed.

The various County Councils at times requested the assistance and advice of the Department, as well as various Township Councils and Suburban Area Commissions.

All of which is respectfully submitted.

J. A. P. MARSHALL,

Assistant Engineer.

PRESCOTT AND RUSSELL

The expenditure during 1918 was mainly on the construction of bridges. In accordance with a resolution passed at the January meeting of the County Council, the road machinery outfits were not operated during the year, except No. 1 outfit at St. Isidore Village. This outfit was rented to the Council of the United Counties of Stormont, Dundas and Glengarry.

One of the most important features in the development of the County Road System was the adoption of Road No. 1, formerly known as the Montreal and Ottawa Road, as a Provincial County Road.

Great difficulty was experienced in securing labour for road work during the year on account of war conditions. So acute was this situation that it was impossible to secure men or teams in many cases to undertake ordinary repair work at the proper time.

Among the more important of bridges constructed and completed during 1918 were the following:

(1) Lapointe Bridge over the Nation River, consisting of three spans, two of 40 feet each and one of 224 feet, at a total cost of $56,843.45. The importance of the road which this bridge connects can be readily seen by the increasing number of vehicles using the road since its erection.

(2) Emard Bridge over the Castor River, consisting of two spans of 65 feet, built of steel and concrete at a cost of $19,933.77.

(3) Lavallee Bridge, Brown's Bridge, two Gullet Bridges in South Plantagenet, Beckett's Bridge and Bear Brook Bridge.

The question of the change in the site of the Bear Brook Bridge was brought before the County Council in January. After an examination of the locality by the Committee on County Roads, it was decided that the new bridge should be built in the proper road allowance, a distance of about 400 feet east of the old structure. This necessitated the construction of new approaches and had the effect of straightening the road, thus improving the general appearance of the bridge and road in that locality.

The approaches were constructed at the price of thirty-five cents per cubic yard and are now nearly completed.

Prescott and Russell expect to undertake a comprehensive and extensive programme of road construction in the very near future and their efforts during the past few years have been with that in view.

The County Road Superintendent is Mr. F. A. Senecal, Plantagenet.

South Plantagenet and Russell Townships.

Visits were also made to the Townships of South Plantagenet and Russell where Township Road Overseers have been appointed.

South Plantagenet during the last year expended approximately $8,000.00 and the Township Road Overseer is Mr. E. Parent. The organization of the township system here in particular is worthy of emulation. The Township is divided up into sections, each in charge of a foreman who is responsible for his particular section. The pay sheets are made up and sent to the Township Road Overseer, who classifies the work and after certifying to the correctness, the accounts are passed by the Township Council. As the roads of South Plantagenet are chiefly clay, dragging with the split-log drag, has been the chief work along with the construction of a number of township bridges.

Russell Township work is very similar to that of South Plantagenet. The Township Road Overseer is Mr. E. Brisson of St. Onge.

CARLETON

The past year has been very unfavourable for road construction and only fair progress was made on the County Road System in Carleton County. The great drawback was the scarcity of labour during the season. On account of the many short sections of road constructed throughout the different municipalities, there was much moving of machinery, men and teams.

Two large bridges were built during the season:

(1) Galetta Bridge over the Mississippi River in Fitzroy Township. The superstructure consists of two Warren trusses of 57′ 4″ span centre to centre of bearing, carrying a 16-foot reinforced floor. The substructure consists of two abutments with splayed wing walls of about 12 feet in length and one central pier; total cost $10,856.00.

(2) Mud Creek Bridge over Mud Creek in Gloucester Township, consisting of a deck bridge of one central span of 50 feet, and two outside girder spans of 41′ 6″ with an 18-foot concrete roadway; total cost of bridge $14,187.00.

A number of short sections of gravelling were undertaken besides other stretches of preliminary grading and tile draining.

The maintenance work on the County Road System has not been systematically carried out, but steps have been taken to remedy this and we look for greater improvement in this matter.

The county, during the season of 1918, spent $14,288.28 on new machinery, which consists of two stone crushers, one oil tractor 27-50 h.p., one oil tractor 17-34 h.p., two graders and two oil tanks.

On the Stittsville Road, County Road No. 10, in concession XII, lot 23, the right-of-way was straightened, cleared, and the roadbed straightened. Previously this was a narrow crooked winding road. The distance improved was one-half mile and the total cost approximately $525.00.

During the year two additions were made to the County Road System under by-laws 635 and 649.

(1) A connecting link was connected south of Vernon with Provincial County Road No. 26 in Stormont, Dundas and Glengarry.

(2) Carp Road, portion of forced road, Carp to South March.

The average cost of finished roadway in Carleton County during the season of 1918 has been approximately $2,400 per mile, including grading.

Nepean Township.

Nepean Township was visited during the summer of 1918. The Township Road Superintendent is Mr. W. Smith of Westboro. During 1918 considerable work was undertaken and the year's expenditure was approximately $15,000.00 for work on the township roads. The Township is well supplied with road machinery and contemplates an extensive programme of road construction.

ONTARIO

The County of Ontario adopted a system of County Roads in 1917. However, it was not until March, 1918, that a superintendent was appointed. The system as originally designated comprised 247 miles, which is approximately 15.6 per cent. of the total road mileage within the area covered by the County Road System.

The system for the most part consists of old gravelled roads which have become neglected. The County of Ontario is hilly in the northerly part of the Townships of Pickering and Whitby, level in the Townships of Thorah and Mara, and the remainder might be considered as of a rolling nature. The south end of the county is greatly cut up by small rivers and creeks which find their source along the height of land in the extreme north of Pickering and Whitby Townships. These rivers flow south into Lake Ontario, and therefore necessitate the building of many culverts and bridges, more especially along the roads running easterly and westerly, thereby incurring great expense when the cost of road-building is considered.

In August, 1917, the Kingston Road, originally designated as County Road No. 1, was taken over by the Department of Public Highways as a Provincial Highway. This comprises 16 miles.

The method of keeping the accounts and paying the men as suggested by this Department has been adopted. During 1918 an advisory committee was appointed, consisting of five members, to meet at the call of the chairman.

With regard to road material, gravel seems to be fairly plentiful, but of rather inferior quality and care should be taken in applying it. During the season of 1918 on parts of the County Road System gravel was dumped without any further attention. This is poor practice.

At the present time, preliminary grading and draining should be done as many of the present county roads are in need of ditching and tile draining.

The machinery purchased by the county during the season consisted of one kerosene tractor, one oil truck, four graders, four pick plows, eleven bowl shovels and fifty-four road drags, besides other small articles.

On Road No. 16, lot 12, Brock Township, a bridge was built consisting of concrete abutments and steel superstructure. The span was 28 feet clear. The total cost was $2,275.35.

In Pickering Township on County Road No. 3, three small concrete culverts were built, two of six-foot span and one of seven-foot span.

In the Township of East Whitby from Cedar Dale south from the Base Line to the Lake on County Road No. 2, considerable grading and filling were done. This road was previously much in need of repair, owing to heavy traffic. Approximately $800.00 was spent on 1.8 miles of road. A big improvement was noted here on completion of the above work.

Considerable grading and gravelling were done on the Centre Road, County Road No. 6, north from Gamebridge, but this work will need attention the first thing in the spring.

Hill cutting was done on Scugog Island on County Road No. 14. This work cost $280.07 and a great improvement is noted.

Some crushed stone was placed on County Road No. 18 north of Atherley for a distance of half a mile. Some binder should be put on and the whole work consolidated by a roller.

A considerable amount of finishing up will have to be done on the uncompleted work of 1918.

SIMCOE

Simcoe County has the second largest mileage of county roads in any one county in the Province.

Very little construction work was undertaken on the county roads in 1918. A number of small culverts were constructed on those portions of county roads where no other construction work was undertaken.

A substantial piece of construction work was done in the Town of Barrie, under a special grant, on Steele Street.

On Road No. 7, Adjala Township, Lot 25, a concrete and steel bridge was built of 75-foot span with a 16-foot roadway, costing $7,901.32.

On Road No. 11b, the substructure was completed for a 60-foot span bridge at Deadman's Bridge and steel was delivered on the ground, but owing to the lateness of the season the erection was left over until 1919.

The Shannon Bridge at the intersection of Raglan, Hume and St. Clair Streets in the Town of Collingwood, consisting of a 40-foot concrete arch, was built at a cost of $4,678.58. This was provided for by a special grant to the Town of Collingwood.

During 1918 that portion of the Penetang Road running north from Waverley to Penetang was assumed as a county road.

One of the most important features in the development of the County Road System was the designation and approval of three important county roads as Provincial County Highways during 1918. These were (1) the Bradford-Barrie portion of the Penetang Road, (2) the Barrie-Orillia Road to the Severn Bridge at the northwestern boundary of Simcoe County, (3) the Barrie-Angus-Brentwood-Sunnidale.

northerly along the Shore Road to Collingwood. The total mileage of these Provincial County Roads as designated comprises 85 miles in Simcoe County.

The machinery equipment is inadequate for the needs of such a large county as Simcoe County. Although in recent years the policy has been the construction of bridges and culverts and road maintenance, it would appear necessary before any large programme of construction is undertaken on the county system that suitable machinery equipment be purchased. At the present time the county does not own a steam rolier.

A considerable number of culverts were constructed during 1918; in all, 25 culverts, 2 bridges and approximately 1 mile of gravelling.

PERMANENT MATERIAL BUT DEFECTIVE DESIGN.

Deeper foundations to a firm bearing, and heavier walls are needed by many concrete structures.

HALTON

Owing to war conditions, Halton County did not undertake very much work on County Road System during the season of 1918. A great deal of difficulty was found in getting the necessary labour and teams on the road at suitable times.

On County Road No. 2, Trafalgar Township, Concession 2, N.D.S., one and one-eighth miles of macadam road were built at a cost of $5,110.48. This completes the construction of the county road between Bronte and Milton.

Work was also undertaken on the Tansley Bridge during the season. This bridge is not completed.

On the Lake Shore Road, the Bronte Bridge was built by the Toronto and Hamilton Highway Commission and the county's share here amounted to $12,092.96.

A number of small culverts, cement, tile and corrugated pipe were constructed on portions of county roads where no other construction work was undertaken.

Proper, adequate and systematic maintenance will help the present roads in Halton to a large degree. In comparison with some of the other counties, the roadway in Halton is narrow.

On Road No. 3 (Brant Street) just north of Burlington, a retaining wall was constructed where a ditch was making serious inroad on the travelled portion of this county road.

On County Road No. 8 (Milton Line) one-half mile of stone road was built at a cost of $1,332.33. In addition to this work, five corrugated pipe culverts and one concrete culvert were built.

PERTH

During the season of 1918 very little in the nature of road construction was undertaken on the County Road System of Perth County.

The chief work done in the towns and villages was the improvement of Main Street in the town of Mitchell, which consisted of 1,000 feet of macadam roadway, a continuation easterly of the 1916 and 1917 work.

This road was drained on both sides from St. Davids Street easterly for a distance of 1,015 feet, with 5-inch and 12-inch tile and macadamized for a width of 16 feet in the same manner as work done in previous years, costing as follows:

175 feet 12-inch tile	$56 71
2,000 feet 5-inch tile	90 00
Putting in tile and covering	241 15
Canada Crushed Stone Co., 591 tons	484 86
Freight	602 30
Teaming	197 30
Field stone at $4.50 per cord	80 14
Spreading and shovelling at $2.50 to $3.50 per day	167 28
Rolling	190 25
9.4 tons coal for roller	92 00
Tarvia	41 10
Lighting	14 50
Advertising	16 00
Total cost	$2,273 59

Price per square yard, approximately, $1.26.

On Road No. 19, the Huron Road, from opposite Lot 22 in the Township of Logan west to Dublin was in very bad condition and very little money had been spent on it under the County Road System since its adoption. As a consequence, the gravel in many places had almost disappeared, and it was intended to put it in shape and metal the entire distance, but only half was completed, beginning at the two extreme ends, that is, at Dublin and working easterly and at Lot 22 and continuing westerly.

On Road No. 33 the work consisted of metalling with crushed gravel from Russelldale westerly to Lot 28, about 2 miles, costing as follows:

Metal, 2,786 yards at $1.10 to .60 per yard	$2,151 19
Gravel	180 60
Spreading, shovelling	187 00
Draining opposite Lot 16, 463 ft. 4-inch tile	38 90
Total cost	$2,857 69

Considerable drainage work has been undertaken during the year. A number of culverts have been built also.

There is a tendency in parts of the county to heap the crushed gravel up on the surface of the road, thereby inconveniencing the traffic passing over it and at the same time cutting the sides. In this way it takes some time before it is consolidated.

The following is a summary of the work done in 1918 on the County Road System of Perth:

Grading	3.75 miles
Stone roads	1.18 miles
Gravel roads	4.94 miles
Tile draining	1,081 rods
Culverts	1
Bridges	7

OXFORD

Owing to the increased traffic during the last few years, the surface of many of the macadam roads is becoming rough and rutted. Greater attention should be paid to systematic maintenance and repair of these roads.

During 1918 two of the most important county roads, the Ingersoll-Tillsonburg Road and the Woodstock-Tavistock Road, were designated and approved as Provincial County Roads. A patrol system has been adopted on both these roads and results show a big improvement.

The work done throughout the season was not very extensive. A considerable amount of finishing was completed on work undertaken late in 1917.

Main Street in the Village of Norwich was graded and metalled. This was undertaken under a special grant made by the County to Norwich Village by by-law.

On the new Durham Road considerable grading was done along the whole length of this road for a distance of 3½ miles. A tractor rented by the County accomplished good results here.

On County Road No. 29 east from Plattsville one mile and a half of crushed gravel was placed and rolled and this is a very fair piece of work.

In the Township of East Nissouri, south of Lake Side on County Road No. 14, one mile of gravelling was done. Considerable summer traffic to the lake is to be found here.

In all, three reinforced concrete bridges were constructed during 1918 by the County of Oxford.

On County Road No. 27, Blandford Township, in Concession II, a concrete bridge of 16-foot span, at a cost of $910.00, was constructed.

On County Road No. 7, in Lot 13 of West Oxford Township, a concrete bridge of 15-foot span, at a cost of $1,187.75, was constructed.

On County Road No. 7, in Concession III, West Oxford, just north of Folder's Corner, a concrete bridge of 16-foot span was built. Owing to the nature of the wet foundation, the whole bridge settled below the surface of the road and the consequence is that the surface of the water is within a few inches of the bottom of the concrete floor of the bridge. Greater attention in the matter of proper inspection should be paid to these permanent structures throughout the county.

Good work was accomplished by scarifying, reshaping and rolling many of the old rutted macadam roads during the year.

MIDDLESEX

The work for the season of 1918 in Middlesex County consisted chiefly in gravelling and general maintenance.

In the Village of Glencoe, Main Street, southerly from the Grand Trunk Railway tracks, was graded and metalled from the Glencoe Gravel Pit. The gravel was laid 14 feet wide and 10 inches in depth. This is a great improvement over the previous poor condition of this portion of the street. The cost of this half mile was $1,000.00.

Just north of Glencoe on County Road No. 6 considerable gravelling was done for a distance of 1.5 miles, at a cost of $3,323.93.

On County Road No. 24 the Komoka Hill was graded and drained. A culvert and necessary catch basins were also constructed. The cost of this work amounted to $792.78. This work completed a very necessary improvement.

On one or two of the concrete bridges and culverts built during the last season, a little more care should be taken in the finish of the completed work.

During 1918 the Sarnia Gravel Road, the Proof Line Road, the Wyton-Thorndale-St. Mary's Road and the Longwoods Road, were designated and approved as Provincial County Roads.

On the Sarnia Gravel Road a concrete culvert was built at a cost of $538.95, with a clear span of 8 feet. From the Lambton County boundary westerly considerable grading was done for a distance of 8 miles.

The Proof Line Road, under the increased traffic of recent years, had become rutted and here the improvement consisted of picking with the roller, shaping and re-rolling without adding any new material. The cost of this maintenance work was approximately $60.00 per mile.

Practically all the permanent structures have been built on this road, with the exception of a bridge in Concession XI of London Township, just south of the Village of Birr. It is the intention of the county to build the bridge in 1919.

General maintenance work was undertaken on the Wyton-St. Mary's Road.

On the Longwoods Road, a new reinforced concrete floor was laid on the Delaware Bridge. Other portions of this road were improved by resurfacing with gravel, tile drainage and general maintenance work.

During 1918 approximately 28 miles of additional county roads were added to the system under By-law No. 835. These consisted of the Hyde Park-Byron Road, the Newbury Road and some mileage lying opposite to agricultural land in the outlying portions of the towns and villages.

A suburban area was established adjacent to the City of London and a commission was appointed during 1918. Approximately $8,200 was spent in maintaining these 50 miles of roads in the suburban area.

Road conditions in Middlesex County have changed during the last few years. The gravel roads which carried the traffic up to a few years ago are now fast requiring greater maintenance work. A higher type of construction, at least on the main roads adjacent to the City of London, seems necessary. With regard to the general condition of the county roads, Middlesex County, with its abundance of good gravel and systematic maintenance diligently applied, will be able to keep its mileage in good shape.

HURON

During the season of 1918 work done under the Highway Improvement Act in Huron County on the designated system of county roads consisted largely in bridge and culvert construction.

In September, 1918, the road known as the London Road, passing through Centralia, Exeter, Hensall, Clinton, Blythe, Belgrave and Wingham, and designated as County Road No. 1, was approved as a Provincial County Road. At this time County Road No. 2, from Dublin to Goderich, known as the Huron Road, was also approved as a Provincial County Road.

During the year two crushers and two bins (Sawyer-Massey), also one elevator and heavy grader were purchased by the County.

Among the more important bridges erected were the following: The Dungannon Bridge (80-foot concrete arch), the Harris Bridge (reinforced concrete bridge), the Hoggs Bridge (steel and concrete), and the Treebner Bridge (reinforced concrete beam).

The most important of the above was the completion of the concrete arch bridge spanning the Nine Mile River on the fourth concession of Ashfield, known as the Dungannon Bridge. The span is 80-foot clear and 120 feet in length in all. Nearly three thousand bags of cement were used in its construction and ten tons of steel rods for reinforcement. The arch is sixteen feet in height and the height over all is twenty-three feet, the three-foot panelled railing along the top giving the structure a handsome appearance. The old bridge (known popularly as Disher's Bridge) had been there for twenty-one or twenty-two years, and this is the third bridge built at this place in half a century. The new bridge is set on almost solid rock. The "slab" of the archway weighs 360 tons and it took thirteen bents to carry it. A feature of the work was the speed with which it was constructed. Although traffic was stopped for ten weeks, the bridge was actually built in twenty-six days. The contractors were Messrs. Sandy and Grant, of Lochalsh, and the total cost was $8,266.97.

In the northwestern corner of Ashfield Township two disconnected portions of County Roads might well be re-considered, as the present location leaves a disconnected portion between Bruce County and Huron County along the Lake Shore Road, which has been designated and approved as a Provincial County Road.

Huron County roads consist of well graded old gravel roads, many of which were built fifty or sixty years ago. Road material seems to be fairly plentiful.

The work completed during 1918 consisted of 3.38 miles of gravelling, 280 rods of tile draining, 5 bridges (4 completed, 1 to finish) and 5 culverts.

NORTHUMBERLAND AND DURHAM

The United Counties of Northumberland and Durham adopted a system of County Roads in March, 1918, which comprises 381 miles, or 14 per cent. of the total road mileage in these Counties. The system appears to have been well selected with a view to serving equitably all portions of the Counties and linking up the chief centres, a commendable feature being the almost entire absence of dead ends. Gravel is plentiful throughout the Counties, and will no doubt be utilized in the construction of the County Roads.

Construction work on County Roads in 1918 included a number of short sections of grading and gravelling amounting to 10 miles in length. Two concrete slab bridges, 20-foot span, were built.

The work on Provincial County Roads consisted in resurfacing with gravel in many places and repairing and extending culverts.

No extensive work is contemplated until the return of normal times.

The grants to towns and villages amounted to approximately one-third of the total expenditure on construction.

Improved Section of Gravel Road on the Provincial Highway.

The roadway formerly descended to a narrow culvert, approached by a narrow earth embankment. A concrete culvert was built the full width of a thirty-foot road, and the earth from this hill was used to widen the embankment at the culvert. This is characteristic of work on the Provincial Highway.

APPENDIX F

PROVINCIAL HIGHWAYS

Toronto, March 31st, 1919.

W. A. McLean, Esq.,

Deputy Minister of Highways, Ontario.

Sir:—

In accordance with 7 Geo. V, c. 16, s. 12, subsec. 1, I have the honour to submit to you a report and certified statement covering work done and expenditure made over periods stated for maintaining the Provincial Highways. During the year a number of additional highways were assumed by the Department, and these extensions, together with the mileage and date on which the roads were taken over, are as follows:—

Within the limits of the Village of Newcastle a continuation of the Provincial Highway 1.23 miles in length assumed June 10th, 1918.

Within the limits of the Town of Whitby a continuation of the Provincial Highway 1.64 miles in length assumed June 10th, 1918.

Within the limits of the Town of Bowmanville a continuation of the Provincial Highway 1 mile in length assumed August 20th, 1918.

The Ottawa-Prescott Highway 57.6 miles in length assumed August 15th, 1918.

The Hamilton-Queenston Highway 29.6 miles in length assumed August 15th, 1918.

The Napanee-Kingston Highway 22.7 miles in length assumed August 15th, 1918.

The Grafton-Belleville Highway 32.4 miles in length assumed October 1st, 1918.

On January 1st, 1919, the Cobourg and Port Hope Toll Road 5.04 miles in length was purchased by the Department and is now a link in the system of Provincial Highways.

The maintenance of the above roads was immediately proceeded with after the highways were assumed, and this report describes work done from that date up until January 31st, 1919.

Maintenance work on the Provincial Highway in the Counties of Ontario and Durham was also continued, and the improvements carried out between January 3rd, 1918, and January 31st, 1919, will be given in detail.

I.—PROVINCIAL HIGHWAY EASTWARD FROM TORONTO

Statement of Expenditure on the Provincial Highway during the period January 3rd, 1918, to January 31st, 1919, in

ONTARIO COUNTY

Maintenance

The bridge over the Rouge River on the Provincial Highway was under the authority of the County when assumed by the Province. During the year lumber was purchased for renewing the handrails and guardrails and some plank for flooring at a cost of $387.90. The west abutment which had settled out of position caused the steelwork to rest against the bridge seat. This was raised at a cost of $26.76, and some new bolts were purchased for the guardrails at a cost of $53.80.

The bridge at the west end of Pickering Village was also under the County authority upon assumption by the Province. During the year new stringers were placed in this bridge at a cost for labour of $48.46, and required spikes were purchased for $5.20. This bridge was given two coats of paint at a total cost of $174.65.

Summary

All charges included in the following totals for work done in the County of Ontario cover only paysheets for men and teams and accounts for materials used in maintenance of the bridges for the period stated.

Maintenance

	Total Expenditure.	*Cost to Municipality.*	
Rouge Bridge—			
Lumber	$387 90	$116 37	
Raising Bridge Seat—			
Labour	26 76	8 03	
Bolts, etc.	53 80	16 14	
	$468 46	$140 54	$140 54
Pickering Bridge—			
Paint	$84 65	$25 39	
Labour, Painting	90 00	27 00	
" Placing Stringers	48 46	14 54	
Spikes, etc.	5 20	1 56	
	$228 31	$68 49	$68 49
Total Cost to County			$209 03

Statement of Expenditure on the Provincial Highway during the period January 3rd, 1918, to January 31st, 1919, in

PICKERING TOWNSHIP

Earthwork Construction

On the Rouge Hill adequate side ditches to take care of the surface flow of water and to carry off the ground water were entirely lacking. To prepare the roadbed for improvement it was necessary that proper ditches be constructed. On the westerly hill a side ditch was excavated on the south side of the road from the foot of the hill to a point a short distance from the summit and the beneficial effect of this drain on the roadway was very marked. On the north side of the road the ditch was cleaned out so that the water could get away more readily.

At Petticoat Creek, after the new concrete culvert was finished, a large amount of grading was undertaken. The old bridge opening was filled in and the roadway widened out and made safe for travel. This made a much needed improvement in the highway, as the old road was very narrow and, due to obscured vision, was rather dangerous.

A concrete culvert was completed at station 6254, a short distance east of Petticoat Creek, and the narrow roadway existing at that point was graded out and considerably widened.

For some distance east and west of Dunbarton School the alignment of the highway was improved, and a large amount of grading completed. The highway had been very narrow in this vicinity, and immediately in front of the school two vehicles could hardly pass when going in opposite directions. The cutting at this point was considerably widened out and the earth removed was used to provide additional width for the embankment to the west. East from the school the line of the road was straightened and widened out to the full Provincial Highway width. The total length of highway improved at this location was 2,200 feet.

During April, 1918, the highway in front of Lot 6 became very soft, and at times was hardly passable. This condition was due almost entirely to insufficient side ditches and proper drainage. To improve this section of road full size side ditches were constructed on both sides of the highway for a distance of half a mile. These ditches were of immediate benefit to the road and a harder surface was obtained.

The total cost of all the above earthwork which is chargeable to construction was $4,740.99.

Tile drainage was found to be necessary at several points on the Rouge Hill and also at Lot 6, and in all 150 feet of 8-inch tile was installed at a cost of $62.18.

Three reinforced concrete culverts were constructed in the Township and a reinforced concrete extension was added to one stone culvert.

A concrete culvert 41 feet long and with opening 9 feet high and 16 feet wide was built at Petticoat Creek. The culvert contained 229 cubic yards of concrete and was completed at a total cost of $2,732.35.

A short distance east of Petticoat Creek a concrete culvert 49 feet long and with opening 3 feet wide and 4 feet high and containing 49 cubic yards of concrete was completed at a cost of $773.21.

Just west of Dunbarton School house a reinforced concrete extension 34½ feet long, 4 feet wide and 5 feet high was added to the stone culvert at that point at a cost of $884.63.

Immediately east of Dunbarton School house a concrete culvert 58½ feet long, 2½ feet wide and 3 feet high and containing 60 cubic yards of concrete, was completed at a cost of $692.83.

Three vitrified tile culverts 78 feet in total length were constructed under the three entrances opposite Mr. Flemming's property at a total cost of $115.61, while guard rails to protect these culverts were built at a cost of $20.46.

Maintenance of the highway was proceeded with and a heavy coat of gravel was applied to a length of 3¾ miles, while patching of the surface with gravel was continued over a distance of 6¼ miles. During such periods of weather as were favourable to dragging, work of this nature was carried out, and the road kept rounded up and in fair surface. About one mile of road was scarified, graded and consolidated with a steam traction outfit.

The entire cost of the above work of gravelling, patching, scarifying and dragging was charged to maintenance and totalled $3,831.23.

Repairs to bridges and culverts were kept up. Planks were placed in the culverts at the top of the west side of Rouge Hill and the culvert ¼ mile east of Petticoat Creek was kept in repair until replacement could be made. A side culvert in Pickering Village and a culvert one mile east of Pickering were also repaired. The total cost of this work was $64.65.

Guard rails at Petticoat Creek, Liverpool Corner and one mile east of Pickering were constructed and whitewashed at a total cost of $46.25.

During the winter season the road was kept open and passageway cleared through drifts. Weed cutting was looked after at the proper time of year, and the total of both of these services was $57.67.

Salvage of lumber used in culvert construction resulted in a credit to Pickering Township of $367.76, being the value of lumber transferred to the Town of Bowmanville.

Summary

All charges included in the following totals for work done in the Township of Pickering, cover only pay sheets for men and teams and accounts for materials used in construction and maintenance of the road for the period stated.

Construction

	Total Expenditure.	*Cost to Township.*	
Earthwork	$4,820 99	$1,446 30	
Tile draining	62 18	18 65	
Bridges and Culverts—			
Petticoat Creek Culvert	2,732 35	819 71	
Culvert, Station, 6254+00	773 21	231 96	
Extension to Culvert, Station 6211+29	884 63	265 39	
Culvert, Station 6201+88	692 83	207 85	
Tile Culverts	115 61	34 68	
Guard rail	20 46	6 14	
	$10,102 26	$3,030 68	
Credit on lumber used at Bowmanville	367 76	110 33	
	$9,734 50	$2,920 35	$2,920 35

Maintenance

	Total Expenditure.	*Cost to Township.*	
Gravelling and patching Highway	$3,831 23	$1,149 37	
Bridge and Culvert Repairs	64 65	19 39	
Guard Rails	46 25	13 88	
Clearing Snow and Cutting Weeds	57 67	17 30	
	$3,999 80	$1,199 94	$1,199 94
Total Cost to Township			$4,120 29

Statement of Expenditure on the Provincial Highway during the period January 3rd, 1918, to January 31st, 1919, in

PICKERING VILLAGE

In accordance with the wishes of the Board of Trustees of the village, about one mile of the Provincial Highway through the Municipality was given a coat of 40 per cent. asphaltic oil. The oil was applied as a dust layer and effectively served its purpose during the dry summer season.

The cost of this work to the Municipality was as follows:—

Maintenance

	Total Expenditure	*Cost to Village*	
Labour	$48 61	$14 58	
Oil	253 15	75 95	
	$301 76	$90 53	
Total Cost to Village			$90 53

Statement of Expenditure on the Provincial Highway during the period January 3rd, 1918, to January 31st, 1919, in

WHITBY WEST TOWNSHIP

Construction

A short distance west of the Town of Whitby, ditches were constructed on both sides of the highway for a distance of 500 feet. About one-half mile east of the Town of Whitby ditches were dug on each side of the road and a narrow roadbed was widened out. The total distance covered by this work was 1,500 feet. The total cost of the above work was $954.35.

Three vitrified tile culverts each 18 feet in length were placed under farm entrances at stations 5618, 5778 and 5779. The total length of 18-inch tile laid was 54 feet at a total cost of $8,221.00.

A guard rail at culvert at station 5613+52 was completed at a cost of $3.00

Maintenance

The gravelling of the road surface for a width of 16 feet was proceeded with for a distance of 2,100 feet westerly from the Town of Whitby. Easterly from the Town of Whitby a heavy coat of gravel was applied for a distance of 1,800 feet. The total distance gravelled was approximately three-quarters mile. For a distance of 3,100 feet west of Whitby Town and also one mile east, the old roadbed was scarified, regraded and consolidated with a tractor. The entire cost of all the above work was $813.24.

Repairs to one and replacements of two culverts at stations 5609, 5610 and 5801, were completed at a cost of $16.10.

Summary

All charges included in the following totals for work done in the Township of Whitby West, cover only pay sheets for men and teams and accounts for material used in construction and maintenance of the road for the period stated.

Construction

	Total Expenditure.	*Cost to Township.*	
Ditching	$954 35	$286 30	
Pipe Culverts	82 21	24 66	
Guard Rail	3 00	90	
	$1,039 56	$311 86	$311 86

Maintenance

	Total Expenditure.	*Cost to Township.*	
Gravelling	$813 24	$243 97	
Culvert Repairs	16 10	4 83	
	$829 34	$248 80	$248 80
Total Cost to Township			$560 66

Statement of Expenditure on the Provincial Highway during the period June 10th, 1918, to January 31st, 1919, in

WHITBY TOWN

Construction

On the section of the Provincial Highway assumed from the westerly limits of the Town easterly, it was necessary to provide efficient side ditches to drain the subgrade of the road, which was wet and springy over the entire distance. Full width side ditches were excavated and an improvement in the road was evident. All material removed from the side ditches was used to advantage in widening the subgrade of the roadway at narrow locations. The total cost of this work was $1,325.25.

Pipes were placed under all farm and house entrances wherever side ditches were excavated. In all a total length of 148 lineal feet of tile was put in at a total cost of $262.58.

Maintenance

A heavy layer of gravel was applied to the highway at the easterly and westerly ends of the town. This material was spread to a width of about 15 feet and had a depth of about 9 inches. It served to provide a smoother road surface and prevented the crust breaking during wet spring weather when the foundation was soft.

On the continuation of the Provincial Highway through the Municipality, an agreement was made with the Town Council to scarify the old roadbed and after loosening the surface to level it off and re-roll the material. This was carried out and gave a fair road for travel. The entire cost of all the above work was $2,725.53.

Two guard rails were repaired at a cost of $1.50.

Summary

All charges included in the following totals for work done in the Town of Whitby, cover only pay sheets for men and teams and accounts for material used in construction and maintenance of the road for the period stated.

Construction

	Total Expenditure.	*Cost to Town.*	
Ditching	$1,325 25	$397 57	
Tile Pipe	262 58	78 77	
	$1,587 83	$476 34	$476 34

Maintenance

	Total Expenditure.	*Cost to Town.*	
Gravelling	$2,725 53	$817 66	
Guard Rail Repairs	1 50	45	
	$2,727 03	$818 11	$818 11
Total Cost to Town			$1,294 45

Statement of Expenditure on the Provincial Highway during the period January 3rd, 1918, to January 31st, 1919, in

WHITBY EAST TOWNSHIP

Construction

For a distance of 2,500 feet in the vicinity of Oshawa Cemetery, the north and south side road ditches were opened up and the material used to widen the roadway at the new concrete culvert. West of Oshawa, side road ditches having a total length of 3,100 feet were dug to provide better drainage for the roadbed. The total cost of this work was $1,202.05.

On the south side of the road from the large culvert at station 5562+50, an eighteen inch tile pipe was placed in the side ditch and backfilled so that only a slight depression sufficient to take care of surface water was left. This tile was installed at a cost of $196.97.

The new concrete culvert at station 5562+00 was completed and accounts rendered to a total of $915.74.

Maintenance

For a distance of 1¼ miles west of Oshawa, a crushed gravel road surface was constructed. This surface was 18 feet wide and nine inches deep, and it was well rolled and consolidated. Gravel was applied to the surface of the roadway for a distance of 1.4 miles east of Oshawa and for a distance of 2.7 miles the roadway was kept well dragged and levelled. The total cost of gravelling the 2.65 miles together with dragging was $5,943.22.

Wooden culverts were constructed at six farm entrances, new stringers were placed in culvert at station 5406+50, and all culvert openings kept well cleaned out at a total cost of $149.94. A new guard rail was placed at culvert at station 5562+00 at a cost of $3.00, while removal of snow and weed cutting cost $8.10.

Summary

All charges included in the following totals for work done in the Township of Whitby East, cover only pay sheets for men and teams and accounts for material used in construction and maintenance of the road for the period stated.

Construction

	Total Expenditure.	*Cost to Township.*	
Ditching	$1,202 05	$360 61	
Tile Pipe	196 97	59 09	
Completion of Culvert	915 74	274 72	
	$2,314 76	$694 42	
Credit on lumber used in Pickering Township	200 00	60 00	
	$2,114 76	$634 42	$634 42

Maintenance

	Total Expenditure.	*Cost to Township.*	
Gravelling	$5,943 22	$1,782 96	
Culverts	149 94	44 98	
Guard Rails	5 00	2 00	
Weed Cutting and Snow Removal	8 10	2 43	
	$6,104 26	$1,831 27	$1,831 27
Total Cost to Township....			$2,465 69

Statement of Expenditure on the Provincial Highway during the period January 3rd, 1918, to January 31st, 1919, in

DARLINGTON TOWNSHIP

Construction

Upon taking over this section of road the drainage was found to be very poor and ditches were entirely lacking in many places. This necessitated the excavation of 1,000 lineal feet of ditch west of Bowmanville and 2,700 lineal feet of ditching 1 mile east of Bowmanville at a total cost of $649.60.

Pipe culverts were also installed as follows:—48 feet of 18" vitrified pipe installed on side road at Courtice Corners and old 12" pipe removed.

Old pipe culvert half mile east of Courtice was lowered and the ends extended; 32 feet of 18" vitrified pipe north side road 1½ miles east of Courtice; 20 feet of 12" concrete pipe, north side farm entrance opposite Bowmanville Cemetery; 5 feet 18" vitrified pipe, south gate entrance, were installed one mile east of Bowmanville Cemetery; also 24' of 18" pipe across the road. The total cost for labour and materials was $417.97.

Guard rails were removed at eight culverts on this road at a cost of $44.65.

Maintenance

On account of the poor drainage the subgrade had softened and allowed the surface to break through in many places. It was found necessary to place a new coat of gravel on six miles of road west of Bowmanville and over one mile east of Bowmanville. Also ¾ of a mile of road east of Bowmanville had the holes filled with gravel and the surface patched where worn or broken through. Also about eight miles of road was dragged. The total cost for maintaining this surface was $4,275 70.

A guard rail was repaired east of Edmondsons Mill at a cost of $6 20.

Snow removal was carried out during the winter at a cost of $9.50.

Summary

All charges included in the following totals for work done in the Township of Darlington cover only pay sheets for men and teams and accounts for materials used in the construction and maintenance of this road during the period stated.

Construction

	Total Expenditure.	*Cost to Township.*	
Earthwork	$649 60	$194 88	
Pipe Culverts	617 97	185 39	
New Guard Rails	44 65	13 40	
	$1,312 22	$393 67	$393 67

Maintenance

	Total Expenditure.	*Cost to Township.*	
Road Surface	$4,275 70	$1,282 71	
Repairs to Guard Rail	6 20	1 86	
Cleaning Snow	9 50	2 85	
	$4,291 40	$1,287 42	$1,287 42
Total Cost to Township.....			$1,681 09

Statement of Expenditure on the Provincial Highway during the period August 20th, 1918, to January 31st, 1919, in

BOWMANVILLE TOWN

Construction

Two new bridges were found to be necessary and were installed at stations 4951 and 4960 of 52 feet and 39 feet spans respectively, each having a 20-foot roadway and one 6-foot sidewalk. The total cost of abutments, steel and erecting of the longer span was $7,177.21. The cost of the shorter bridge was $2,866.44, erected. The cost of grading the approaches was $1,125.66. Twenty-four feet of 12" concrete pipe culvert was laid under side entrance opposite the cemetery at a cost of $5.00.

Maintenance

The road surface was repaired by giving a complete coat of gravel over 1,000 feet in the west part of the town, 1,300 feet opposite the fair grounds and 1,200 feet between the new bridges. This part of the road was also dragged, the cost for gravelling and dragging being $253.55.

Summary

All charges included in the following totals for work done in the Town of Bowmanville cover only pay sheets for men and teams and accounts for materials used in the construction and maintenance of this portion of the road during the period stated. The Municipal Corporation is asked to pay 60 per cent. of the expenditure made to date.

Construction

	Total Expenditure.	*Cost to Town.*	
Bridge at Station 4951.....	$7,177 21	$4,306 33	
Bridge at Station 4960.....	2,866 44	1,719 86	
12" pipe culvert	5 00	3 00	
Earthwork	1,125 66	675 40	
	$11,174 31	$6,704 59	$6,704 59

Maintenance

	Total Expenditure.	*Cost to Town.*	
Gravelling and dragging ..	$253 55	$76 06	$76 06
Total cost to Town.....			$6,780 65

Statement of Expenditure on the Provincial Highway during the period of January 3rd, 1918, to January 31st, 1919, in

CLARKE TOWNSHIP

Construction

The surface of this road when taken over was in a very rough condition, very badly drained and, especially west of Newtonville, very narrow. This necessitated ditching and widening the road for 1,200 feet along the north side of the swamp west of Newtonville. The grades were also reduced, road bed widened and ditching was carried on for 4,000 feet between Newtonville and the swamp. Also 800 feet of road was ditched and widened one-half mile west of Newtonville. The total cost of all the above earthwork was $1,959.16.

Seven pipe culverts were installed at farm entrances, side roads, and across the road at a total cost of $161.00. The steel was delivered at the site for the new bridge over Wilmot Creek at a cost of $2,141.06. Five new guard rails were erected at a total cost of $30.50.

Maintenance

Over one mile of road west of Newcastle, three miles between Newcastle and Newtonville and half a mile of road east of Newtonville were given a light coat of gravel. Holes were patched with gravel on 1¾ miles of roadway. Shoulders were graded on two miles of road east of Newtonville and eight miles of road were dragged. The total cost was $1,181.78.

Box culverts at station 4459 was repaired at a cost of $8.00 and the guard rail repaired at a cost of $14.50. The cost of removing snow and cutting weeds during this period amounted to $106.81.

Summary

All charges included in the following totals for work done in the Township of Clarke cover only pay sheets for men and teams and accounts for materials used in the construction and maintenance of this portion of the road during the period stated.

Construction

	Total Expenditure.	*Cost to Township.*	
Earthwork	$1,959 16	$587 75	
Culverts	161 00	48 30	
Bridge Steel	2,141 06	642 32	
Guard Rails	30 50	9 15	
	$4.291 72	$1,287 52	$1,287 52

Maintenance

	Total Expenditure.	*Cost to Township.*	
Road Surface	$1,181 78	$354 52	
Cudvert Repairs	8 00	2 40	
Guard Rail Repairs	14 50	4 35	
Snow and Wood Removal.	106 81	32 04	
	$1,311 09	$393 31	$393 31
Total Cost to Township..			$1,680 83

Statement of Expenditure on the Provincial Highway during the period of June 10th, 1918, to January 31st, 1919, in

NEWCASTLE VILLAGE

Construction

In order to carry off surface water on this stretch of road it was necessary to do 1,100 feet of ditching on the south side of the road in the west end of the village, taking out the old sidewalk and filling in. Also the road bed was widened and ditched on both sides west of the C. P. R. Bridge. The total cost for the above work was $744.75.

Six pipe culverts were placed at side entrances at a total cost of $341.19. One concrete catch basin and cover was installed at a cost of $12.50.

Maintenance

1.1 miles of road was gravelled. The shoulders were graded on 1 mile along both sides and 1.5 miles was dragged, the total cost being $544.99. Guard rails near telegraph office and near C. P. R. subway were repaired at a cost of $9.00.

Summary

All charges included in the following totals for work done in the Village of Newcastle cover only pay sheets for men and teams and accounts for materials used in the construction and maintenance of this portion of the road during the period stated.

Construction

	Total Expenditure.	*Cost to Village.*	
Earthwork	$744 75	$223 42	
Pipe Culverts	341 19	102 36	
Catch Basin	12 50	3 75	
	$1.098 44	$329 53	$329 53

Maintenance

	Total Expenditure.	*Cost to Village.*	
Road Surfacing	$544 99	$163 49	
Guard Rails	9 00	2 70	
	$553 99	$166 19	$166 19
Total Cost to Village			$495 72

Statement of Expenditure on the Provincial Highway during the period, January 3rd, 1918, to January 31st, 1919, in

HOPE TOWNSHIP

Construction

Ditching and widening of the road bed was carried on in ten places between Hope and Clarke Township line and Port Hope, in all 10,600 lineal feet of road for a total cost of $3,138.95.

Five new 18" pipe culverts were placed in side entrances and one 15" pipe culvert was extended, the cost for this work complete being $262.67. Five new concrete culverts were built on this stretch of road ranging in size from 4' x 5' to 3' x 2', the total cost for these culverts being $3,563.14 Six new guard rails were supplied and erected at a cost of $59.65.

Maintenance

It was found necessary to give 2.4 miles of this road a new coat of gravel. Eight miles of road were dragged. The total cost was $3,267.62. Two old culverts were repaired. Some stone was placed around the north end of foundations of new culvert at station 4163 to prevent scouring and some broken concrete pipes were taken out. The total cost of this work was $106.34.

Repairs were made to five guard rails at a total cost of $47.66. Removing snow in the winter was found necessary, costing $163.37.

Summary

All charges included in the following totals for work done in the Township of Hope, cover only pay sheets for men and teams and accounts for materials used in the construction and maintenance of this portion of the road during the period stated.

Construction

	Total Expenditure.	*Cost to Township.*	
Earthwork	$3,138 95	$941 69	
Culverts and Bridges	3,825 81	1,147 74	
Guard Rails	59 65	17 89	
	$7,024 41	$2,107 32	
Less lumber credit	236 47	70 94	
	$6,787 94	$2,036 38	$2,036 38

Maintenance

	Total Expenditure.	*Cost to Township.*	
Road Surface	$3,267 62	$980 29	
Culverts	106 34	31 90	
Guard Rails	47 66	14 30	
Snow Removal	163 37	49 01	
	$3,584 99	$1,075 50	$1,075 50
Total Cost to Township...			$3,111 88

ASSESSMENT OF COST OF COBOURG AND PORT HOPE TOLL ROAD

W. A. McLEAN, Esq.,
Deputy Minister of Highways, Ontario.

SIR,—

On January the 1st, 1919, the Cobourg and Port Hope Toll Road, 5.04 miles in length, was purchased by this Department at a cost of $8,000.00, and in accordance with Section 30 of the Provincial Highway Act I have to report as follows on the distribution of the cost of the road upon the municipalities, the corporations and the Department of Public Highways.

The Department of Public Highways will bear 40 per cent. of the cost of this road. I would consider that it would be equitable for the United Counties of Durham and Northumberland to pay 25 per cent. of the cost of the road as in the case of the Cobourg and Baltimore Toll Road. There is left 35 per cent. of the cost of the road to be distributed upon the municipal corporations within which or adjacent to which the road lies, and which are locally benefited by the road, namely, the Town of Port Hope, the Town of Cobourg, the Township of Hope and the Township of Hamilton.

In making a distribution of the cost, the assessments of the municipalities interested should be taken into consideration, and in the case of the four municipalities above mentioned the assessments are almost identical, varying approximately from two million one hundred thousand dollars to two million three hundred and seventy-five thousand dollars. I would, therefore, consider that five per cent. of the cost of this road might equitably be charged to each of the four municipalities.

The Towns of Cobourg and Port Hope are directly benefited by the abolition of tolls on this road, and for this benefit I would make an assessment of four per cent on each of the towns. This makes the total levy on the Town of Port Hope of 9 per cent. of the cost of the road, and the same amount, namely, 9 per cent. of the cost of the road, would also be paid by the Town of Cobourg.

In the case of the Township of Hope it should be pointed out that the road lies in the south-east corner of the township and is used by a comparatively small number of the ratepayers of that township. I would, therefore, consider that no charge should be made against the Township of Hope for benefit in the abolition of this road, because of the location of the road in the township, and also because of the fact that it would be used by a very small number of the ratepayers of the Township of Hope, and I would consider that the levy against the Township of Hope on the basis of assessment should be reduced to three per cent. of the cost of the road.

In the case of the Township of Hamilton, I would consider that the levy of five per cent. of the cost of the road based on the assessment of the municipalities is fair, and in addition there is a special benefit to the ratepayers of this township, because of the abolition of tolls on this road, and for this special benefit a fair levy would be four per cent. of the cost of the road, as in the above cases of the Town of Port Hope and the Town of Cobourg.

The road passes through the Township of Hamilton for a distance of nearly 3¾ miles, and is one of the main roads of travel for the ratepayers of that Township in reaching the Towns of Port Hope and Cobourg. I would, therefore, consider that the Township of Hamilton should pay more than the Towns of Port Hope and Cobourg, because of the fact that the road is of immediate and special benefit to the ratepayers of the Township of Hamilton, and for this special benefit I would make an assessment of five per cent. This would make the total levy on the Township of Hamilton towards the purchase price of this road of 14 per cent.

A summary of the assessment of cost of this road would be as follows:—

Summary

(Purchase price of road, $8,000.00.)

Province of Ontario, assessed 40 per cent., or		$3,200 00
Counties of Durham and Northumberland, assessed 25 per cent.		2,000 00
Town of Port Hope, assessed	9%	720 00
Town of Cobourg "	9%	720 00
Township of Hope "	3%	240 00
Township of Hamilton "	14%	1,120 00
Total		$8,000 00

All of which is respectfully submitted,

GEO. HOGARTH,
Chief Engineer.

Statement of Expenditure on the Provincial Highway during the period October 1st, 1918, to January 31st, 1919, in

HALDIMAND TOWNSHIP

It was found necessary to increase the width of several stretches of the road in this township to make it safe for traffic; also ditching was done on these parts of the road. The total length thus treated was 4,500 feet at a total cost of $135.10.

The surface was full of holes and practically broken through in the badly drained parts necessitating a new coat of gravel on 3.1 miles of road. The holes were filled and the surface patched over 2.8 miles. Grading was carried on to bring the shoulders back to shape over both sides of a quarter of a mile of road. The total cost for surface maintenance was $2,807.35.

Repairs were made to the 22-foot span bridge 1½ miles east of Grafton at a cost of $13.14.

Guard rails were renewed at seven culverts and were whitewashed at a cost of $79.74.

Summary

All charges included in the following totals for work done in the Township of Haldimand, cover only pay sheets for men and teams and accounts for material used in the construction and maintenance of this portion of the road during the period stated.

Construction

	Total Expenditure.	*Cost to Township.*	
Earthwork	$135 10	$40 53	$40 53

Maintenance

	Total Expenditure.	*Cost to Township.*	
Road Surface	$2,807 35	$842 21	
Bridges and Culverts	13 14	3 94	
Guard Rails	79 74	23 92	
	$2,900 23	$870 07	$870 07
Total Cost to Township...			$910 60

Statement of Expenditure on the Provincial Highway during the period October 1st, 1918, to January 31st, 1919, in

CRAMAHE TOWNSHIP

The drainage of the road through this township was practically negligible in places, necessitating a great deal of ditching and building up of the shonlders; 2,400 feet of ditching was done along the north side of the road at a cost of $110.90. Also 18" pipe culvert ½ mile west of Salem Factory was taken out and replaced 50 feet west at a cost of $10.00.

The road surface was given a new coat of gravel over a distance of 3.5 miles, while patching and repairing were carried out over 1.6 miles. Shoulders were re-graded and put in shape over one mile of road while dragging was carried out over five miles. This work, together with weed cutting over three miles of road, cost $2,595.60.

The box culvert ¾ mile west of Salem Factory was repaired at a cost of $5.00.

Four guard rails were also repaired at a total cost of $41.32.

Summary

All charges included in the following totals for work done in the Township of Cramahe, cover only pay sheets for men and teams and accounts for materials used in the construction and maintenance of this portion of the road during the period stated.

Construction

	Total Expenditure.	*Cost to Township.*	
Earthwork	$110 90	$33 27	
Culverts	10 00	3 00	
	$120 90	$36 27	$36 27

Maintenance

	Total Expenditure.	*Cost to Township.*	
Road Surface	$2,595 60	$778 68	
Culverts	5 00	1 50	
Guard Rails	41 32	12 40	
	$2,641 92	$792 58	$792 58
Total Cost to Township			$828 85

Statement of Expenditure on the Provincial Highway during the period October 1st, 1918, to January 31st, 1919, in

COLBORNE VILLAGE

To improve the drainage in the village it was necessary to do 1,200 feet of ditching on the south side of the road near the east end of the village. The cost for this work was $42.50.

A new concrete culvert was built at station 2722+25, the costs for which to the end of this period were $92.00.

A new coat of gravel was placed on 1.2 miles of road in the village and dragging was carried on, the total cost being $1,300.10.

Summary

All charges included in the following totals for work done in the Village of Colborne cover only pay sheets for men and teams and accounts for materials used in the construction and maintenance of this road during the period stated.

Construction

	Total Expenditure.	*Cost to Village*	
Earthwork	$42 50	$12 75	
Culverts	92 00	27 60	
	$134 50	$40 35	$40 35

Maintenance

	Total Expenditure.	*Cost to Village*	
Surfacing	$1,300 10	$390 03	$390 03
Total Cost to Village			$430 38

Statement of Expenditure on the Provincial Highway during the period October 1st, 1918, to January 31st, 1919, in

BRIGHTON TOWNSHIP

To improve the drainage 300 feet of ditching was done on the north side of the road ½ mile west of Brighton Village at a cost of $13.00.

A guard rail was also erected at Station 2358 at a cost of $9.00.

A total of 3.6 miles of road was gravelled to a width of 12 feet and depth of 9" in the township, while patching was carried out over one-half mile and dragging over 0.4 miles. Weeds were cut over 1½ miles and shoulders were shaped up over ¼ mile on both sides of the road. The total cost was $5,588.57. One side entrance culvert ½ mile west of Brighton Village was repaired at a cost of $1.50.

Summary

All charges included in the following totals for work done in the Township of Brighton, cover only pay sheets for men and teams and accounts for materials used in the construction and maintenance of this portion of the road during the period stated.

Construction

	Total Expenditure.	*Cost to Township.*	
Earthwork	$13 00	$3 90	
Guard Rail	9 00	2 70	
	$22 00	$6 60	$6 60

Maintenance

	Total Expenditure.	*Cost to Township.*	
Road Surface	$5,588 57	$1,676 57	
Culverts	1 50	45	
	$5,590 07	$1,677 02	$1,677 02
Total Cost to Township			$1,683 62

Statement of Expenditure on the Provincial Highway during the period October 1st, 1918, to January 31st, 1919, in

BRIGHTON VILLAGE

On account of poor drainage of surface water the subgrade had been softened and the road surface broken through in numerous places. To improve this condition ditches were cleaned out at several places at a cost of $51.50. Also two 18" vitrified pipe culverts were installed for $32.12. These amounts were charged to construction.

One and a quarter miles of road were gravelled and dragged, while the shoulders on both sides were sloped up and graded over ¾ of a mile of road.

Summary

All charges included in the following totals for work done in the Village of Brighton, cover only pay sheets for men and teams and accounts for materials used in construction and maintenance of this road during the period stated.

Construction

	Total Expenditure.	*Cost to Village.*	
Earthwork	$51 50	$15 45	
Culverts	32 12	9 64	
	$83 62	$25 09	$25 09

Maintenance

	Total Expenditure.	*Cost to Village.*	
Road Surface	$1,714 57	$514 36	$514 36
Total Cost of Village			$539 45

Statement of Expenditure on the Provincial Highway during the period October 1st, 1918, to January 31st, 1919, in

MURRAY TOWNSHIP

The only work done on this section of the road to be classed as construction was 400 feet of ditching on the north side of road east of culvert at station 2030+00 at a cost of $3.00.

The maintenance of the road surface necessitated regravelling of 3.4 miles of road 12 feet wide and 9 inches deep. Also 1.2 miles of road was patched with gravel and holes filled.

The road was dragged over 5.4 miles and weeds were kept cut. The total cost was $4,685.45.

One culvert ½ mile east of Brighton Township line was repaired at a cost of $5.00. Also the guard rail was repaired at this culvert for $3.28.

Summary

All charges included in the following totals for work done in the Township of Murray, cover only pay sheets for men and teams and accounts for materials used in the construction and maintenance of this portion of the road during the period stated.

Construction

	Total Expenditure.	*Cost to Township.*	
Earthwork	$3 00	$0 90	$0 90

Maintenance

	Total Expenditure.	*Cost to Township.*	
Road Surface	$4,685 45	$1,405 64	
Culverts	5 00	1 50	
Guard Rail	3 28	98	
	$4,693 73	$1,408 12	$1,408 12
Total Cost to Township			$1,409 02

Statement of Expenditure on the Provincial Highway during the period October 1st, 1918, to January 31st, 1919, in

SIDNEY TOWNSHIP

The Provincial Highway in the Township of Sidney is ten miles in length and extends from the westerly limits of the City of Belleville to the easterly limits of the Town of Trenton. A very heavy through traffic between these centres of population has been passing over this highway for several years and lack of complete maintenance had resulted in the road becoming very rough. The surface from end to end was full of small holes which filled with water during rainstorms and this condition tended to soften up the subgrade, rendering the road difficult to keep properly graded and rounded up. In several places the side ditches were entirely absent and the surface flow of water was not directed into proper channels An improvement was effected in such cases by opening up adequate ditches to provide drainage.

To properly improve the surface of the roadway it was necessary to place a coating of gravel over the old material. This gravel was used to fill in holes and level off the travelled portion of the highway over the entire distance of ten miles. The cost of this work of maintenance averaged $253.35, per mile or $2,533.56 for the entire ten miles of the Provincial Highway within the township.

The guard rails on two timber bridges were in a decayed condition dangerous to public travel and were replaced at a total cost of $100.90.

Summary

All charges included in the following totals for work done in the Township of Sidney, cover only pay sheets for men and teams and accounts for material used in maintenance of the road for the period stated.

Maintenance

	Total Expenditure.	*Cost to Township.*	
Gravelling	$2,533 56	$760 07	
Guard Rail Repairs	100 90	30 27	
	$2,634 46	$790 34	
Total Cost to Township			$790 34

Statement of Expenditure on the Provincial Highway during the period August 15th, 1918, to January 31st, 1919, in

NORTH FREDERICKSBURG TOWNSHIP

East of the Town of Napanee the Provincial Highway extends through the Township of North Fredericksburg for a distance of 3.7 miles. An examination of this road when it was assumed by the Department, showed it to have deep ruts in the centre with high

shoulders at the sides and the entire surface was in a rough and unsatisfactory condition. To properly prepare the roadway, it was necessary to grade and ditch the entire distance of 3.7 miles and this was done at a cost of $864.10.

Two farm entrance culverts were constructed and a dry masonry wall 40 feet in length and 4 feet high was constructed at Little Spring Creek. The total cost of this work was $183.90, and is chargeable to construction.

After the grading was completed a course of stone was applied to the surface for the entire distance and well rolled. The resulting surface was free from roughness and under the present traffic passing over the highway should last in good condition for some little time. The cost of placing and rolling this stone was about 1,000 per mile for road or in all $3,608.59.

Summary

All charges included in the following totals for work done in the Township of North Fredericksburg, cover only pay sheets for men and teams and accounts for material used in construction and maintenance of the road for the period stated.

Construction

	Total Expenditure.	*Cost to Township.*	
Culverts and masonry wall.	$183 90	$55 17	$55 17

Maintenance

	Total Expenditure.	*Cost to Township.*	
Grading and ditching	$864 10	$259 23	
Applying broken stone and rolling	3,608 59	1,082 57	
	$4,472 69	$1,341 80	$1,341 80
Total Cost to Township ..			$1,396 97

Statement of Expenditure on the Provincial Highway during the period August 15th, 1918, to January 31st, 1919, in

ERNESTOWN TOWNSHIP

When the Provincial Highway was assumed in the Township of Ernestown and an inspection made it was found to be in bad repair. The surface was worn out for nearly the entire total distance of 11 miles and was very rough and uneven, being full of holes and depressions. In several places the ditches were not properly constructed and graded, while on other sections grading of the surface and shoulders of the road was needed. Because of the nature of the grading and ditching undertaken it has been classed as maintenance. The cost of such work was $1,622.21, and a total distance of ¾ mile was completed.

Maintenance of the surface of the road was carried out by placing broken stone wherever required to level up and smooth the travelled highway. The work was carried out over a distance of 8 miles, 3.2 miles of which received a coating of stone approximately 8" in depth. The total cost of placing and rolling stone was $4,348.30.

Summary

All charges included in the following totals of work done in the Township of Ernestown, cover only pay sheets for men and teams and accounts for material used in maintenance of the road for the period stated.

Maintenance

	Total Expenditure.	*Cost to Township.*	
Grading and ditching	$1,622 21	$486 66	
Applying broken stone and rolling	4,348 30	1,304 49	
	$5,970 51	$1,791 15	
Total Cost to Township...			$1,791 15

Statement of Expenditure on the Provincial Highway during the period August 15th, 1918, to January 31st, 1919, in

KINGSTON TOWNSHIP

The total length of the Provincial Highway in the Township of Kingston is 8 miles and over this road a very heavy traffic passes to and from the City of Kingston. When the highway was assumed, some sections were in a rough condition and arrangements were completed for applying crushed stone to all portions requiring re-surfacing.

This crushed stone was applied to a depth of approximately 5 inches for a total distance of 3 miles at a cost of $3,583.44.

An improvement to the ditching in the vicinity of Cataraqui Village was carried out and one culvert was placed under a farm entrance at a total cost of $36.10. This work was classed as construction.

Summary

All charges included in the following totals for work done in the Township of Kingston, cover only pay sheets for men and teams and accounts for material used in construction and maintenance of the road for the period stated.

Construction

	Total Expenditure.	*Cost to Township.*	
Ditching and culvert	$36 10	$10 83	$10 83

Maintenance

	Total Expenditure.	*Cost to Township.*	
Applying broken stone and rolling	$3,768 94	$1,130 68	$1,130 68
Total Cost to Township ...			$1,141 51

II.—PROVINCIAL HIGHWAY FROM PRESCOTT TO OTTAWA

Statement of Expenditure on the Provincial Highway during the period August 15th, 1918, to January 31st, 1919, in

EDWARDSBURG TOWNSHIP

The section of the road in this township was found to be in a worn out condition and to make it fit for traffic it was necessary to do a great deal of cleaning out of old ditches and culverts, cutting brush etc., and to patch and re-surface a great deal of the road.

The road was shouldered up and ditches dug over a length of 2,300 feet.

Old ditches were cleaned out and opened for a length of 6,920 feet. Also six culverts were repaired and cleaned out. Holes were filled with stone and the surface patched over 34,300 feet of road, and a new surface of stone was applied over a length of 11,070 feet. Considerable dragging was also done over parts of this road to keep the surface rounded up and fit for traffic.

Summary

All charges included in the following totals for work done in the Township of Edwardsburg, cover only pay sheets for men and teams and accounts for materials used in the construction and maintenance of this portion of the road during the period stated

Construction

	Total Expenditure.	*Cost to Township.*	
Earthwork	$10 80	$3 23	$3 23

Maintenance

	Total Expenditure.	*Cost to Township.*	
Earthwork	$113 90	$34 17	
Surfacing	1,635 19	490 56	
Culverts	23 10	6 93	
	$1,772 19	$531 66	$531 66
Total Cost to Township ...			$534 89

Statement of Expenditure on the Provincial Highway during the period August 15th, 1918, to January 31st, 1919, in

OXFORD TOWNSHIP

The road in this township was in parts very narrow, requiring widening, and shoulders were broadened out with field stone to the full width of 30 feet over a length of 8,800 feet. The cost of this work was $1,433.53. This amount also included clearing and brushing at the sides of the road for a distance of 5,100 feet. The road surface was improved near station 1410, for a distance of 1,100 feet by levelling up with gravel.

The road surface was in very bad condition requiring a new course of gravel for a length of 10,750 feet, this course in general being eight to ten inches thick. Patching and filling of holes was also carried out over 7,100 feet. A total length of 3,400 feet of ditch was deepened and opened out to improve the drainage, and minor repairs were made to culverts and guard rails.

Considerable dragging was also done throughout this period to keep the road fit for traffic.

Summary

All charges included in the following totals for work done in the Township of Oxford, cover only pay sheets for men and teams and accounts for material used in the construction and maintenance of this portion of the road during the period stated.

Construction

	Total Expenditure.	*Cost to Township.*	
Earthwork	$948 87	$284 66	
Clearing Brush	484 66	145 40	
	$1,433 53	$430 06	$430 06

Maintenance

	Total Expenditure.	*Cost to Township.*	
Road Surface	$3,314 45	$994 34	
Culvert Repairs	43 85	13 14	
Guard Rail Repairs	8 45	2 54	
Clearing Ditches, etc.	48 83	14 65	
	$3,415 58	$1,024 67	$1,024 67
Total Cost to Township			$1,454 73

Statement of Expenditure on the Provincial Highway during the period August 15th, 1918, to January 31st, 1919, in

NORTH GOWER TOWNSHIP

The road through this township was in places very narrow and the sides grown up with brush and small trees. The road surface was in very bad shape. Permanent construction work was done in building the fill across Cranberry Creek at a cost of $194.45.

The road was maintained and made fit for traffic by the cutting of brush along the sides of the road for a distance of 12,200 feet; it was also widened for a length of 2,700 feet. The surface was patched and holes filled and the road dragged for a distance of 18,500 feet, while new gravel and stone about 8 inches thick was put on the road for a distance of 10,300 feet.

Summary

All charges included in the following totals for work done in the Township of N. Gower, cover only pay sheets for men and teams and accounts for materials used in the construction and maintenance of this portion of the road during the period stated.

Construction

	Total Expenditure.	*Cost to Township.*	
Earthwork	$194 45	$58 33	$58 33

Maintenance

	Total Expenditure.	*Cost to Township.*	
Road Surface	$1,034 05	$310 21	
Cutting Brush, Cleaning Ditches, etc.	288 90	86 67	
	$1,322 95	$396 88	$396 88
Total Cost to Township ...			$455 21

Statement of Expenditure on the Provincial Highway during the period August 15th, 1918, to January 31st, 1919, in

NEPEAN TOWNSHIP

The road through this township was in many parts without foundation, and the drainage being imperfect, it was impossible to keep the surface in shape. Permanent foundations were built of field stone for 4,200 feet of road, though in some places this could not be made the full width of road as fences were too close together. Wherever stone was applied the roads were ditched sufficiently to carry away surface water. The cost was $590.25.

The road surface was repaired over a length of 12,200 feet by filling holes and dragging, while a complete coat of new gravel was applied over a distance of 4,200 feet.

One temporary culvert was put in and two culverts were repaired and guard rails erected.

Summary

All charges included in the following totals for work done in the Township of Nepean, cover only pay sheets for men and teams and accounts for materials used in the construction and maintenance of this portion of the road during the period stated.

Construction

	Total Expenditure.	*Cost to Township.*	
Earthwork	$590 25	$177 07	$177 07

Maintenance

	Total Expenditure.	*Cost to Township.*	
Road Surface	$651 27	$195 36	
Ditches, Culverts and Guard Rails	94 60	28 40	
	$745 87	$223 76	$223 76
Total Cost to Township...			$400 83

III.—PROVINCIAL HIGHWAY FROM HAMILTON TO QUEENSTON

The Hamilton-Queenston Provincial Highway runs from the City of Hamilton to the Niagara River at Queenston. From Hamilton easterly it is a continuation of Main Street and follows that street to the junction with what is known as the Stoney Creek Road, about a mile east of the Village of Stoney Creek. Through the County of Lincoln, it has been known for years as the Queenston-Grimsby Stone Road.

The following is a brief report of the expenditure made by the Department from August 15th, 1918 to January 31st, 1919.

BARTON TOWNSHIP

From Hamilton City limits to the Saltfleet line no work was done during the fall and winter. The surface is earth and little can be done on it until the spring.

SALTFLEET TOWNSHIP

From the Barton line easterly to the intersection with the Stone Road, there was no work done during the season. From this latter point to the Grimsby line the surface was rough in many places with a wide road surface and shallow side ditches.

Earthwork

Ditches were excavated on the permanent line and to a temporary grade at various points as required for proper drainage. About 1 mile of the road was thus drained by ditches on both sides and an additional 1,350 feet of ditch was excavated on the north side to relieve the drainage. Over a length of 2¾ miles the sod was removed in the fall and during the winter in order that the ground might be ready for ditching when the frost came out. The total cost of this work was $1,808.30.

Culverts

Five entrance culverts were laid at points where the ditching had been done. Some of these are of extra length in order to provide access to the stopping places of the Hamilton-Grimsby and Beamsville Electric Railway which parallels the road across the township. The total cost of entrance culverts, including tile still on hand, amounts to $246.75.

Road Surface

Early in the fall a roller was used to scarify 2¾ miles of the road for a width of 16 feet. Of this 1½ miles was surfaced with new stone and screenings and rolled; 1 mile was patched with new stone where necessary, but was not rolled; and ¼ mile was resurfaced, but not rolled. The road across the entire township was dragged several times with a tractor grading outfit and a considerable amount of patching of small holes was done as necessity arose. The cost of this work has been charged to maintenance and amounts to $5,259.14.

Summary

All charges included in the following totals for work done in the Township of Saltfleet, cover only pay sheets for men and teams, and accounts for material used in the maintenance and construction of the road, for the stated period.

Construction

	Total Expenditure.	*Cost to Township.*	
Earthwork	$1,808 30	$542 49	
Tile draining and culverts.	246 75	74 02	
	2,055 05	$616 51	$616 51

Maintenance

	Total Expenditure.	*Cost to Township.*	
Surfacing	$5,259 14	$1,577 74	$1,577 74
Total Cost to Township...			$2,194 25

NORTH GRIMSBY TOWNSHIP

From the Saltfleet line to Grimsby Village, the surface was very rough and full of holes. From the village for about 1 mile west, the grade was wide and well crowned; from here to the Saltfleet line it was narrow. From Grimsby Village east the surface was uneven and the grade narrow, and little or no provision for side drainage existed. The Hamilton-Grimsby and Beamsville Electric Railway runs on the south side of the road across the township and in some places is so close to the road that it is difficult to obtain the standard 30 foot grade and provide for side ditches.

Earthwork

Temporary ditches have been constructed on both sides of the road over a length of 1¼ miles. Ditches on one side for a distance of 2 miles were also excavated and the material used to build up the shoulders of the road, a surplus being drawn away. No heavy hill or bank cutting was encountered in any part of the township. The total cost for earthwork under construction is $2,021.60.

Culverts

Six 18-inch vitrified pipe entrance culverts were installed at a cost of $141.75. Sixteen existing culverts were cleaned out under maintenance at a cost of $21.00.

Road Surface

Early in the fall the road was dragged across the township and during the winter whenever necessity arose the dragging was repeated. In the west end of the township 280 yards of the road were scarified, graded, new stone and screenings added and the surface rolled. Over a length of 2 miles crushed stone and screenings were applied to a width of 16 feet, but the roller was not used. One and one-half miles were surfaced and patched where necessary. The total cost of surface maintenance was $2,971.25.

Summary

All charges included in the following totals for work done in the Township of North Grimsby, cover only pay sheets for men and teams and accounts for materials used in the maintenance and construction of the road, for the period stated.

Construction

	Total Expenditure.	*Cost to Township.*	
Earthwork	$2,021 60	$606 48	
Bridges and Culverts	141 75	42 52	
	$2,163 35	$649 00	$649 00

Maintenance

	Total Expenditure.	*Cost to Township.*	
Earthwork	$1 20	$0 36	
Bridges and Culverts	21 00	6 30	
Road Surface	2,971 25	891 37	
	$2,993 45	$898 03	$898 03
Total Cost to Township			$1,547 03

CLINTON TOWNSHIP

From the Grimsby line to the Village of Beamsville, the road surface was full of holes, the grade was narrow, the alignment poor, and there were no ditches. From Beamsville east for about 1 mile the same conditions existed, but from this point to the Louth line the surface was in excellent condition, the grade was fairly wide, but there were no ditches.

Earthwork

On the south side of the road across the township there are comparatively high banks which necessitate the removal of a large amount of earth in order to provide ditches. On the north side this condition does not exist and ditches can be excavated at comparatively small cost. Over a considerable length of the road the installation of ditches necessitates the cutting into high banks to a depth of from 6 to 12 feet. Ditches have been excavated on the permanent line and to temporary grade on both sides of the road over a length of 3½ miles and on one side only for a total distance of 1¼ miles. The total cost of this work amounts to $1,659.85, all chargeable to construction.

Road Surface

The road across the township was dragged several times in the fall and winter. For a length of about 400 yards past the Aviation Camp, east of Beamsville, the road was surfaced and rolled to a width averaging 16 feet. Where necessary, defects in the surface have been patched with stone and screenings. The total cost of surface maintenance for the above work is $2,231.53.

Guard Rails

Necessary repairs to guard rails were performed at a cost of $3.70, chargeable to maintenance.

Summary

All charges included in the following totals for work done in the Township of Clinton, cover only pay sheets for men and teams and accounts for materials used in the maintenance and construction of the road for the period stated.

Construction

	Total Expenditure.	*Cost to Township.*	
Earthwork	$1,659 85	$497 95	$497 95

Maintenance

	Total Expenditure.	*Cost to Township.*	
Road Surface	$2,231 53	$669 46	
Guard Rail	3 70	1 11	
	$2,235 23	$670 57	$670 57
Total Cost to Township			$1,168 52

LOUTH TOWNSHIP

Between Vineland, at the western boundary of the township, and Jordan Village, 1.59 miles, a tar macadam surface had been constructed prior to the road being designated as a Provincial Highway.

Between Jordan and the east side of the Fifteen-mile Creek, 3.42 miles, the surface was rough and the grade narrow. The road is on a side hill for the greater part of the distance and ditches had not been constructed on a portion of this section.

Between the east side of the Fifteen-mile Creek and the Grantham line, 1.58 miles, the surface had recently been renewed with waterbound macadam and was in good condition. The drainage was poor, but the grade was almost of the width required for the Provincial Highway.

Earthwork

Between Vineland and Jordan the ditches and gutters were cleaned out, ditches leading to the road opened and the grade slightly widened just west of Jordan. Between Jordan and the Fifteen-mile Creek ditches were constructed on the south side on the permanent line and to a temporary grade for a distance of approximately 2 miles. Two outlet ditches were opened and high banks were cut down and ditches excavated at two points. The total cost of the earthwork was $1,391.85.

Culverts

Five 18-inch vitrified tile entrance culverts were installed in their permanent locations and two temporary plank culverts erected. A charge of $134.00 is made for two 18-inch corrugated pipe culverts which have not been installed, but are held in readiness for replacing some culverts which are in poor condition and might become blocked at any time before they could be replaced by permanent structures.

Road Surface

For a total distance of about 1½ miles the road received a coating of crushed stone and screenings. A short stretch of this was consolidated with the roller, but the greater portion of it was unrolled as the work was undertaken in cold weather. Prior to the application of the stone the road was dragged with the heavy grader and tractor through the entire township, a distance of 6.59 miles. The cost of maintaining the surface by dragging and laying stone was $4,241.50. There was no charge for construction on this part of the work.

Guard Rail

A short guard rail was erected on the south side of the road at the small fill and the erection of 1,600 feet of guard rail on the east of Jordan Hill was commenced, but not completed. The cost of labour so far on these was $173.67.

Summary

All charges included in the following totals for work done in the Township of Louth, cover only pay sheets for men and teams, and accounts for materials used in the maintenance and construction of the road, for the stated period.

Construction

	Total Expenditure.	*Cost to Township.*	
Earthwork	$1,391 85	$417 56	
Culverts . .	142 95	42 88	
Guard Rail .	173 67	52 10	
	$1,708 47	$512 54	$512 54

Maintenance

	Total Expenditure.	*Cost to Township.*	
Metalling, dragging and patrol	$4,241 50	$1,272 45	
Culverts, including two in stock	159 55	47 86	
Guard Rail	8 25	2 48	
	$4,409 30	$1,322 79	$1,332 79
Total Cost to Township ...			$1,835 33

GRANTHAM TOWNSHIP

The western boundary of the township is approximately 1 mile west of the City of St. Catharines. This section had recently been surfaced by the County of Lincoln and was in very good condition. From St. Catharines East to the Welland Canal the grade is narrow, being bordered on the north by large trees for a part of the distance and on the south by a street railway track. The surface on this section was very rough and full of holes. Between the present canal and the Village of Homer the grade is wide, and the surface was in good condition. From Homer to the Niagara Township boundary the surface was fairly smooth, but the grade required widening.

Earthwork

Earth was removed from the shoulders of the road from St. Catharines to the eastern boundary of the township, 3.36 miles, thus widening the grade and providing facility for the water to run off. In two places high banks were cut down and the material was used for widening the grade at adjacent gulleys. From St. Catharines to Homer, 1.4 miles, temporary ditches were excavated and the grade widened. The total cost of earthwork and ditching was $1,499.45.

Culverts

A total of 33 entrance culverts were installed and one 18-inch tile was embedded in concrete across the road opposite Victoria Lawn Cemetery. Two lines of tile were laid to a catch-basin at Hartzell Road and two lines were installed at a cross road in order to carry the water under the walk. The grating of a catch-basin at the St. Catharines eastern limits was raised to conform to the grade of the road. The total cost for materials and labour for culverts was $415.05 and for tile and installation $384.92. Fifty-one outlet ditches were cleaned and opened and 12 culverts were cleaned out. This work is chargeable to patrol.

Road Surface

The road was surfaced with stone under maintenance for a length of 450 yards, the greater part of this work being done immediately east of St. Catharines. Where surfacing was not required, but heavy patching was necessary, this was done and the surface between St. Catharines and Homer was placed in better condition. Prior to the application of stone, the road was dragged throughout the length of the township, a length of 4.21 miles.

Summary

All charges included in the following totals for work done in the Township of Grantham, cover only pay sheets for men and teams, and accounts for materials used in the maintenance and construction of the road for the period stated.

Construction

	Total Expenditure.	*Cost to Township.*	
Earthwork	$1,499 45	$449 83	
Tile and pipe draining	384 92	115 48	
Culverts	415 05	124 51	
	$2,299 42	$689 82	$689 82

Maintenance

	Total Expenditure.	*Cost to Township.*	
Metalling, dragging and patrol	$2 884 93	$865 48	$865 48
Total Cost to Township			$1,555 30

NIAGARA TOWNSHIP

Throughout the length of the township, the road surface was in fairly good condition but the grade required widening in order to bring it up to the cross section of the Provincial Highway. The character of the country leads itself well to drainage, but there were few suitable ditches at the sides of the road.

Earthwork

Work in this township was commenced late in the season and earthwork was confined to the widening of the grade. In order to do this a surplus of earth had to be removed from the sides of the road to adjacent dumps. Across two gulleys the grade was widened slightly with the earth taken from either side. This class of work was carried on over a length of 2½ miles and is chargeable to construction, the cost being $1,347.85.

Culverts

One entrance culvert was installed, chargeable to construction, and a small pipe culvert, with a plank catch-basin under the M. C. R bridge east of St. Davids, was repaired. The cost of repairing the catch-basin was $1.80 and the cost of the entrance culvert with the tile for the catch-basin and the labour in installing them was $78.75. Three large culverts were cleaned out and 80 small outlet ditches were opened, this work being charged to patrol.

Road Surface

The road surface for the entire length of the township, 5.5 miles, was dragged with the grader and as necessity arose this operation was repeated over small lengths. The total cost of this work, chargeable to maintenance, was $692.90.

Summary

All charges included in the following totals for work done in the Township of Niagara, cover only pay sheets for men and teams and accounts for materials used in maintenance and construction of the road for the period stated.

Construction

	Total Expenditure.	*Cost to Township.*	
Earthwork	$1,347 85	$404 35	
Bridges and Culverts	78 75	23 63	
	$1,426 60	$427 98	$427 98

Maintenance

	Total Expenditure.	*Cost to Township.*	
Road Surface	$692 90	$207 87	
Catch-basin	1 80	54	
	$694 70	$208 41	$208 41
Total Cost to Township			$636 39

All of which is respectfully submitted.

GEO. HOGARTH.
Chief Engineer.

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PROCEEDINGS

OF THE

Seventeenth Annual Meeting

OF THE

Ontario Good Roads Association

HELD IN

THE YORK COUNTY BUILDINGS, TORONTO
March 5th, 6th and 7th

1919

PRINTED BY ORDER OF
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1919

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To the Honourable F. G. Macdiarmid,

Minister of Public Works and Highways, Ontario.

Sir,—I have the honour to transmit, for publication as an appendix to the Annual Report of this Department, the proceedings of the Seventeenth Annual Meeting of the Ontario Good Roads Association, held in York County Council Chambers, Toronto, on Wednesday, Thursday and Friday, March 5th, 6th and 7th, 1919.

I have the honour to be,

Sir,

Your obedient servant,

W. A. McLean,

Deputy Minister of Highways.

Parliament Buildings, Toronto.

May 1, 1919.

SEVENTEENTH ANNUAL MEETING

OF

The Ontario Good Roads Association

HELD IN

THE YORK COUNTY BUILDINGS, TORONTO, Mar. 5th, 6th and 7th, 1919

OPENING SESSION

March 5th, 1919

REPORT OF EXECUTIVE COMMITTEE FOR 1918

Immediately following the close of last year's Convention the new Executive met for the customary formal business.

The annual mid-season meeting of the Executive Committee of the Ontario Good Roads Association was convened at Kingston on Monday, the 8th July. President C. R. Wheelock was in the chair and there was a full attendance including A. Rankin, M.P.P., Frontenac, and W. D. Black, M.P.P., Addington. Secretary G. S. Henry, M.P.P. for East York, was warmly congratulated on his well-deserved preferment as Minister of Agriculture. Considerable routine business was disposed of. The importance of regulating traffic on improved highways was discussed. The use of the motor truck shows that roads adjoining and between populous centres in Canada and the United States are not being constructed or maintained so as to stand up under this class of traffic. Road construction, owing to war conditions, is being held up in most counties, and it was thought that a full report on the question should be available for consideration at the next session of the Legislature. On the following day the committee were entertained at luncheon by the Council and Board of Trade and were shown the beauties of Kingston. An extended trip through the counties of Frontenac and Leeds gave them an opportunity of becoming acquainted with county road development and the difficulties that have to be solved in that district. At Gananoque the members of the Committee met J. R. Dargavel, M.P.P. for Leeds, and were placed in charge of the local Board of Trade, which has been most active in promoting the location of the Provincial Highway along the St. Lawrence. A public meeting was held in the evening in the beautiful grounds surrounding the Town Hall. This was addressed by members of the Committee and the Deputy Minister of Highways, Mr. W. A. McLean, who took advantage of the occasion to make the first public announcement that the Provincial Highway would follow the old established line of travel through Gananoque to Kingston. This was received with great enthusiasm and is one of the results achieved by the Board in its campaign for improved highways.

On the following day the Committee as the guests of the Council and Board of Trade of the town were taken for a trip through the beautiful Thousand Islands to Clayton, N.Y., where motors were in waiting for a trip over some of

the highly improved state roads to give them an idea of what may be expected when the Provincial Highway is completed. At Watertown, N.Y., the delegation was met by the Mayor and President of the Chamber of Commerce. After luncheon, patriotic greetings were exchanged and a visit made to the beautiful park donated to the city some years ago. One of the sights was a munition factory occupying fifteen acres, employing 8,000 men all under military guard. This impressed every one with the magnitude of the preparations being made in the United States for carrying on the war.

The return trip was via the Thousand Island House at Alexandria Bay over magnificent asphaltic macadam roads. Maintenance material was deposited on the road sides and the one horse and man patrol repair outfits were passed at intervals. The state roads were uniformly good and dustless and with the present system of maintenance will last for many years without extensive repair.

On returning, the thanks of the Committee were formally tendered to the Gananoque authorities for the courtesy and assistance in making the visit so enjoyable and instructive.

The third meeting of the Executive was held at the Queen's Hotel, Toronto, on December 20th, 1918. Mr. K. W. McKay, W. A. MeLean and the President, Mr. C. R. Wheelock, were appointed a programme committee, the result of whose labours we have before us as our comprehensive bill of fare for the present Convention.

GEO. S. HENRY,
Secretary-Treasurer.

On motion of Mr. T. J. Mahony, seconded by Mr. F. C. Biggs, the report was adopted.

AFTERNOON SESSION

THE PRESIDENT, C. R. WHEELOCK, in the Chair.

THE PRESIDENT'S ADDRESS

The Ontario Good Roads Association meets to-day for the first time in five years with the bright sunshine of peace shining brilliantly over the British Empire. The terrible war clouds which menaced the liberty of our Empire, the liberty of the world, have passed away. Great Britain is at peace, her armies have been crowned with a glorious victory on land, her fleet is still mistress of the seas.

"Win the War" has been the slogan coming from the hearts of the people of Canada with ever increasing vehemence for over four years, and all other interests were willingly sacrificed for this great and noble objective. It has now been reached, we have won the war, we have rejoiced over the glorious victory, and now to meet the problems of reconstruction and after war conditions there must be no cessation in our activities.

During the war, public works of all kinds have been at a standstill, and as a result much needed works have been left over until they have piled up in heaps. This seemed at the time to be a great misfortune, but may now be turned to splendid account. Public works must be speeded up and will thus form one

of the greatest factors in tiding over the reconstruction period. The federal and local governments together with the municipal governments, by co-operating in this work, can do much in the way of providing employment. The work to be done and material supplied will give employment to all classes—labourers, skilled mechanics, farmers, professional men and manufacturers.

There is probably no public work that offers as great advantages along this line as the construction of our public roads. It will give employment to all classes in all parts of the province and allows co-operation of the governments and municipalities in the work, and besides there is no public work as necessary for our progress at the present time. That there has been an awakening to the advantages of better roads is shown by the interest now taken in all road matters. There never has been a time in the history of the country when good roads was such a live question. It is a live issue in the politics of the Dominion and Province, the county and township, the city, town and village, and is heard from every platform and from the pulpit and the press.

That there will be an active and progressive programme of road-building this year in all parts of the province seems to be admitted. Even the few who have not vision to see the advantages that will result from a good provincial system, or perhaps have not taken the trouble to investigate, have been able to read the signs of the times and, as they express it, there is to be "an orgy of road-building." If a progressive programme of road-building, every detail of which has been carefully thought out and carefully planned, in the most sober and sane manner, can be called "an orgy of road-building," then we are certainly going to have "some orgy,"—an orgy that will do much in repatriating our gallant soldiers from overseas, an orgy that will do much in giving employment to the unemployed during the period of reconstruction.

The Ontario Highways Department has been engaged in devising well considered road systems and making surveys, plans and specifications, and those roads will be selected for improvement which are of the greatest economic importance.

Every mile of good road is a benefit to the farmer, increases his opportunity to expand his farming operations, increases the possibility of profit in farming, enables him to reach out to better markets, to distribute his products direct to the consumer in the shortest possible time, and to have the products of the factory delivered at his gate. There is not an industry in the province that does not have to pay tribute to bad roads, nor is there one that is not benefited by good roads.

Roads must be classified according to traffic and must be built for the traffic they are to carry. The cost of construction and maintenance is in proportion to the traffic. And the most economical system of roads for the province, a county or a township will be the system that has its roads most intelligently classified and constructs the type of road suitable for the traffic. It is no economy to build a cheap road, suitable only for light traffic, on a road that has to carry heavy traffic; and on the other hand, it would be extravagance to build the more expensive types of roads for light traffic. Ontario's highway organization provides the following classification for her roads: (1) Provincial highways, consisting of a limited number of trunk highways to provide for the heaviest class of through traffic in the province, connecting up our large cities and important terminal points.

(2) Provincial county roads, consisting of the main through roads on county systems, connecting with adjoining county roads and forming the connecting links with all the counties and towns of the province.

(3) Ordinary county roads, consisting of main roads to local markets, that meet the needs of accumulated farm traffic.

(4) Township roads, consisting of roads for the ordinary local traffic of a township.

(5) Suburban roads, consisting of the roads of a county system adjacent to a city and being the leading roads radiating therefrom.

This classification is complete, comprehensive and workable, and covers all the rural roads in the province. The government aids in different degrees the improvement of all classes of roads. The basic principle in arriving at the division of cost between municipalities benefited and the amount of the subsidy or assistance given by the government, for each class of roads, seems to have been that the cost of a road to a municipality should be in proportion to the amount of traffic for which such municipality would be fairly and justly liable. As an example, take a road such as the Toronto and Hamilton Highway, with an average traffic of say 2,000 and a maximum of 5,000 vehicles a day, carrying inter-city and long distance, together with a comparatively small amount of local traffic. It would manifestly be unfair and unjust to leave the whole burden of this road on the rural taxpayer. The cost therefore is divided between the adjoining rural municipalities, the cities of Toronto and Hamilton and the government. The government's portion, paid from the revenue derived from motor licenses, covers the proportionate share of the traffic for which the general public are liable.

It would seem that this scheme for apportioning the cost has been very carefully thought out and results in a fair and equitable distribution, and I am proud to say is along the lines that have been advanced and advocated by this association. It provides for payment by cities of a fair amount for traffic originating therein and passing over rural roads, and also provides for a fair distribution of the revenue from motor vehicle licenses over all the roads of the province.

An attempt has been made to condemn the construction of trunk roads on the ground that they are built for "speedways for millionaires and pleasure-seekers." I do not think that this statement could have been made after a careful consideration of the facts. These main highways are the most important links in a provincial system of highway transportation. They relieve rural municipalities of the greater part of the upkeep of these roads which up to a few years ago fell entirely upon the rural taxpayer. Roads must be built for the traffic they are to carry, and if the heavy traffic can be concentrated on a few hundred miles of main roads, thousands of miles of ordinary country roads will be relieved of building the more expensive types which would otherwise be necessary. An ordinary gravel road would be destroyed in a few days by the traffic which the Toronto-Hamilton Highway carries.

The provincial highways designated by the government up to the present are less than 600 miles. The rural roads of old Ontario total 55,000 miles. Of this total, 9,200 miles have been assumed by county councils as county roads. A complete system of provincial county roads has not yet been designated by the Highways Department, but when completed will probably cover not less than 2,500 miles of the county roads.

The three elements of transportation are waterways, railways, and highways, and the three must be linked up to form a perfect transportation system for this province. Without waterways, we would lack sufficient transportation; without railways, we would lack to a greater degree sufficient transportation; and without

highways our whole transportation system would be useless—we would be uncivilized. Byrne, in his "Highway Construction," says, "Countries inhabited by the least civilized people, whose wants can be supplied in the immediate vicinity of their dwellings, are almost destitute of roads; hence it has come to be said that roads are the physical symbol by which to measure the progress of any age or people. If the community is stagnant, the condition of the roads will indicate the fact: if they have no roads they are savages." Smiles, in "Lives of the Engineers," says, "The road is so necessary an instrument of social well-being, that in every new colony it is one of the first things thought of . . . . The new country, as well as the old, can only be effectually opened up by roads, and until these roads are made it is virtually closed." And to quote further, "Roads rule the world—not kings nor courts, not ships nor soldiers. The road is the only royal line in the democracy, the only legislature that never changes, the only court that never sleeps, the only army that never quits, the first aid to the redemption of any nation, the exodus from stagnation in any society, the call from savagery in any tribe, the herald of prosperity. The road is umpire in every war and when the new map is made, it simply pushes on its great campaign of help, hope, brotherhood, efficiency and peace."

In conclusion I wish to thank the delegates and Road Superintendents for the way in which they have responded to the call to this meeting, I do not think there is one county of our province which is not represented here. This enthusiasm speaks well for the progress of the Good Roads movement. And further I would like to say that we want every delegate to feel that one of the greatest objects of this meeting is to answer him personally any question on which he requires information in respect to road matters. Attending the meetings we have experts on the highway laws, expert road engineers and experts in handling machinery and road construction, so there should be every chance of getting reliable information. Many important questions will be considered during the session. Enter freely into the discussions. The interchange of ideas and experiences assure the success of the meeting.

ADDRESS

J. E. Allen, Belleville

Mr. President and Gentlemen of the Convention:

It is an entire surprise to me to be called on at this time. A question which I have given some thought to is the present tendency of the motor truck traffic on our highways. This is a question which has come to the front and must be taken into serious consideration in the construction of any of the provincial highways. In considering any transportation problem we must consider what is going to go over the roads, whether it be a railway or a highway. A good many years ago locomotives could operate with perfect satisfaction on a 60 pound rail, but to-day no railway of any magnitude would consider laying down a 60 pound rail; they lay nothing less than 90 to 110 pounds, and the same parallel applies to the construction of main trunk roads, over which three to five ton trucks travel. If the roads have not sufficient surface to withstand the heavy traffic they will be destroyed in a very short time.

One illustration of that is the wear and tear to roads in the United States. On account of the severe congestion of freight over the railways, it was found necessary to transport all classes of freight from the central part of the country to the seaboard by trucks, and truck routes were laid out, and 8 to 25 trucks were started out from Chicago, Cincinnati, Cleveland or any of the large centres and would travel right through to the coast. This was found to be not only economical, but the goods were carried to their destination with absolute safety. Consequently the roads were subjected to heavy motor traffic, and some of the roads in six months were almost shot to pieces as it were, especially some of the ordinary waterbound macadam roads. These shortly went to pieces, while other types of roads stood up under the traffic very well.

It has also been found that farmers can transport their milk by motor car more quickly and cheaper than by the ordinary methods of hauling by team. As an indication of the great increase in motor traffic, I might say that in 1910 the production of motor cars in the United States was only about 18,000, and in 1918 there were 250,000 motor trucks produced. That is an indication of what the roads will have to take care of in the near future.

In considering the provincial highways which it is proposed to build east and west, there is no doubt they will be used for transporting produce, fruit and vegetables and all sorts of farm produce. All these things can be taken to Toronto by motor truck within a radius of 100 miles of the city. Merchandise will be carried back from Toronto in these trucks and in that way will relieve railways, and you will have quick delivery. I think it will result in lowering the present high cost of living in the cities.

This question should be considered in constructing the provincial roads, and they should be made sufficiently wide and the bridges should be sufficiently wide to prevent any danger when trucks pass one another. A sixteen foot highway is not wide enough unless it has proper shoulders which will allow rigs to pass. All these things have to be thought of in connection with motor traffic.

We will also have to consider the weight of motor trucks to be allowed on certain roads. I do not think it would be a proper thing to allow a five ton truck continually to operate over an ordinary county highway, because it would simply destroy the road. On the other hand, it would not be good policy to restrict the use of main trunk highways to these trucks because it is to the advantage of the farmer and people living outside the city as well as to the city people. In my opinion a three-ton truck does no more damage to a highway than a seven-passenger heavy touring car.

ADDRESS

"STONE AND GRAVEL ROAD CONSTRUCTION"

J. G. Wilson, County Road Superintendent, Halton

Mr. Chairman and Gentlemen:

The subject, "Stone and Gravel Roads," which has been assigned to me, is one of the most important that will come before this Conference, as these are the kind of roads that are largely being built, but conditions are changing very rapidly and the time is at hand when other methods of construction will have to be adopted.

We have now at least three classes of roads, viz., Provincial, Provincial County and County Roads, and I am sure our Government and those in charge of the Highway Department are to be congratulated on the assistance given towards the improvement of our roads; and the system which has been adopted is one which should commend itself to everyone interested in the improvement of our roads.

The first question which presents itself is, What roads should be built of stone or gravel?

The Provincial Road is calculated to connect up not only the Provinces but the great nation to the south of us and will be an advertisement of our Province, also a great inducement to tourists to come in, and the great amount of traffic that will be attracted to this road will call for a more permanent type.

Next in importance is the Provincial County Road, which will link up the different counties and be feeders to the Provincial Road, and now that the auto truck is coming into general use this class of road will also be called upon to carry a large amount of heavy traffic and if built of waterbound macadam will require a bituminous wearing surface.

We now come to the County Road which is intended to link up the different centres in the county and be feeders to the Provincial County Road, and no doubt these roads will have to be constructed of stone or gravel and it is very important that they should be built in the best manner possible.

Method of Construction

1. It should be staked out straight in the centre of the road allowance from 24 to 28 ft. wide, depending on the locality and the amount of traffic it will have to take care of.

2. The hills should be cut down to a grade of not more than 6 per cent. if possible, for after the road is constructed it is not likely to be done again, and if it is, it will be at a considerable extra cost, and a little extra cost at the time the road is built will give more satisfaction and the cost is soon forgotten, but a bad job is an eyesore and an inconvenience for all time to come.

3. It should be underdrained where necessary and culverts placed at the natural water courses to carry the water across the road; never carry it along the road to save putting in a culvert.

4. The road should then be well graded and the crown for a single track road should be one inch to the foot to allow for settling, with good open ditches with sufficient outlets. Water should never be allowed to stand in the ditches as it will soak under and injure the road.

The preparation of the road as stated above should be done one year before the metal is put on to give it time to consolidate; if not, it should be thoroughly rolled. The harder you get the foundation the better, for it is much easier to consolidate the stone on a firm foundation. You will never get good results when you build on a soft or yielding sub-grade. Very wet weather is a bad time to build a road, as it is important that the foundation of a road should always be dry; it is also important to be dry and hard when it is being constructed, for when the road is wet the stone is pressed down into the mud and the mud is forced up through the stone and in a very short time the road becomes rutted and soon goes to pieces.

Stone Roads

After the road has been thoroughly prepared the next thing to consider is the quality of the stone, which should be hard and tough. Of course conditions and the convenience of the stone to the work will have to be considered in deciding what to use, but don't use a poor quality for the sake of saving a few cents a yard.

The next question is width and depth of metal for a single track road. Ten feet should be a suitable width but it should not be less than that; wider would be preferable. The depth of the metal should be determined by the amount of traffic it will have to take care of and the kind of soil on which it is built; for instance, where the foundation is of a gravelly nature making a good natural drainage a depth of eight inches when consolidated might be sufficient, but where you have to build on a sub-grade of heavy clay, it might be necessary to make it twelve inches and in that case the road should be excavated to a depth of six inches and filled with coarse stones and thoroughly rolled when dry; for the second course stone from 1½ to 2 inches would be a suitable size and this course must also be thoroughly rolled, beginning at the edge of the stone and working to the centre. The screenings are then put on and plenty of water to make a slush, the roller should still be kept going and at the same time the road should be well brushed with stable brooms to fill this void.

The water wagon should have wide tires not less than four inches to prevent rutting the road; in fact, all wagons used on the job should have wide tires.

It is very important that the foreman in charge of the work and the man who operates the roller should be competent men, and work together with the end in view that when the road is completed it will be the best road in the county.

Gravel Roads

Gravel, while not as durable as broken stone, yet has some advantages on account of it being easier to construct, easier to maintain and cheaper. Of course, the length of haul is a big factor in the cost of any kind of road, and where the length of haul brings the cost up to anywhere near the cost of stone it should never be considered.

Gravel varies greatly in quality but is, as a rule, suitable for roads where the traffic is not too heavy.

When you can get the right proportion of stone from pebbles up to two inches with just enough sand to fill the void, you have an excellent material with which to build a road, if the road is well drained and you put on a sufficient depth of gravel, say from 10 to 12 inches and have the road well crowned it will stand up under quite heavy traffic, but it is very rare you will get a pit where the whole body of gravel is as I have described, but in most pits there is some good gravel, and great care should be taken to see that only gravel of good quality is used.

Dirty gravel should be avoided. While gravel with an excess amount of clay will pack quickly and make a good road in dry weather, when the rains come in the spring or fall it turns to mud and ruts badly and soon wears out.

A few stones are not objectionable if the gravel is otherwise good as these can be raked forward and placed under the next load. Never leave them in a heap at the end of the load. They prevent the gravel from settling even.

See that an even grade of gravel is taken from the pit. One part of the pit may be very fine, another quite coarse and still another may contain too much

clay, and the teamsters all crowd in at the same time and load wherever it is most convenient with the result that every load is of a different grade and where the roads are consolidated it will be very uneven and you will be able to tell where every load was dumped from the depressions that will be found. A road of this kind is very objectionable.

Where the gravel has a large amount of stones or boulders it should be run through the crusher. Gravel should be spread on the road at least seven feet wide and from 10 to 12 inches in depth. While the traffic will in time consolidate the gravel and in a year's time there may not be much difference between it and a road that is rolled, the satisfaction of having the road in a finished state from the beginning is well worth the cost of rolling.

ADDRESS

Hon. F. G. Macdiarmid, Minister of Public Highways

Mr. President and Gentlemen:

From the large attendance before me this afternoon, it is quite evident that the Ontario Good Roads Association is still a powerful organization in this Province. I am pleased indeed to again have the pleasure of meeting with such a large and representative body of men interested in the good roads movement. This, I believe, is your 25th anniversary. On a previous occasion I referred to the persistency with which some men identified with your Association have followed its growth from its inception. We are to-day in the Province of Ontario reaping the fruit of the patient endeavours of these men who, during the early stages of the Ontario Good Roads Association, were identified with its origin, with its growth and with its development.

The question of good roads is to-day engaging public attention to a greater extent than ever before in the history of this Province. The most outstanding event during the past year, is, I presume, the fact that the Federal Government now recognize the importance of the good roads movement throughout the Dominion of Canada and have agreed to set aside the sum of $20,000,000 to be divided between the different Provinces of this Dominion on the basis of population.

It is not my intention this afternoon to review the legislation which we have on the Statute Books of the Province regarding the roads of this Province. I have done that on previous occasions, and you are all pretty well familiar with the legislation under which you are working at the present time. Two years ago I addressed a letter to the various counties then operating under the Highway System in the Province of Ontario calling attention to the abnormal conditions which prevailed throughout the Province at that time, the great demand there was for labour in other fields, and stating that the prosecution of the war was the most important matter we had to deal with.

During the past two or three years, activities with regard to the making of our public highways, while not altogether suspended, were not being prosecuted as vigorously as they would have been under different conditions. To-day the situation is entirely changed, and from information from officials of the counties, it would appear that the counties are about to embark upon a more comprehensive scheme in connection with their county systems of highways; and I wish to say that if that is your judgment and if that is the view you intend to take with

regard to the situation in your county at the present time, then you will find the Department most loyally and enthusiastically supporting you. (Applause.)

I believe it is your duty as well as it is the duty of the Provincial Government and the Dominion Government to assist in every possible way to relieve the situation as far as employment is concerned in the Province of Ontario. There is more or less unemployment. We are passing through a period of readjustment and facing a period of reconstruction. In the opinion of men best able to judge, men who have made a success of their own business and who stand high in the financial affairs of this country, who have given their best thought to the period through which we are passing at the present time, there is no field opening before the public of the Province of Ontario where they can better use labour than in the building of permanent highways in this Province. That being the general opinion, then I believe it is the duty, and I believe it is the intention of the counties throughout the Province of Ontario to pursue an aggressive policy in regard to the construction of roads during the present year.

The attitude of the Department is exactly the attitude of the Department two years ago when I addressed a communication to you. We have been quietly preparing, as a Government, to meet the situation with which we are now faced. The legislation providing for a system of Provincial highways in this Province was placed in the Statutes to meet the period of reconstruction. Preparatory work has been done, and now we are face to face with the performance of the promises we have made.

There is just one matter I wish to refer to this afternoon before touching on Provincial highways. I am pleased to notice the increasing number of local municipalities throughout the Province of Ontario that have taken advantage of the legislation passed some years ago and are appointing overseers to supervise the expenditure of township money instead of placing that burden upon the councillors in the different townships. That system is growing in the Province of Ontario, and I believe good results will follow from it.

There has been some objection raised from some influential quarters in the Province of Ontario with regard to Provincial highways. I believe these objections are founded on a misapprehension of the whole scheme, or how it is to be undertaken. It is not the thought or intention of the Department to construct a uniform road of one kind of material from one end of this Province to the other, at this time. We want to be practical in the expenditure of public money. We want to build a highway which will carry the traffic passing over the highway. It is the duty of the Department to study traffic conditions and to provide not only for the traffic of to-day but to provide for the traffic of the future. We have been in a transitory stage as far as the construction of roads is concerned for some years. We thought we had solved the problem as far as taking care of the horse traffic in the country by waterbound macadam roads, then came the motor car and we found that waterbound macadam was not satisfactory. Then when the motor car was fairly well established we met the motor truck, and it is recognized to-day as one of the great difficulties the United States have to deal with in solving their road problems.

The motor truck carries many tons of freight, and it is very destructive on the highways. We have this year increased substantially the fee that motor trucks of that description will have to pay, not altogether as a license to travel on our highways, but as compensation for injury they do to our highways.

Is it necessary to have Provincial highways in this Province? Last fall a deputation waited on the Government and myself as Minister of Public Works

and Highways from the County of Lincoln, representing that district between Hamilton and the Falls. They said they had been spending at the rate of $1,000 a mile on their road for the past two years, and that the road was in a worse condition than it was two years before, notwithstanding this heavy expenditure of money. They said they could not bear the burden. They said the traffic was not a local traffic; it was Provincial or international in its character. It entered at an international point and passed through to some of the large cities in the Province; and they asked the Government to step in and assume the burden. For that reason, we feel justified in establishing the system of Provincial highways in this Province and contributing 70 per cent. out of the Provincial funds to their upkeep and maintenance.

We are not creating new roads in building Provincial highways. We are simply taking the existing roads where the traffic is heavy. We have always had Provincial highways in this Province, but they were never known by that name. There were always main lines of travel in different sections of the Province, but they were never called Provincial highways. There was no legislation until two years ago for the Province to assume any proportion in connection with the upkeep and repair of these highways. We are simply taking a series of market roads and connecting them up and calling it a Provincial highway. The farmers living along a Provincial highway where the traffic is heavy should not be penalized; they should only be called upon to contribute a reasonable amount, the same amount as if they lived on other roads. If you ask them to construct, maintain and keep up a highway of this character, you will place upon them a burden which would be unjust and unfair. We have assumed the Provincial highways for the reasons I have indicated; we are not creating any new roads; we are merely taking the existing roads where there is very heavy traffic, and assuming what we believe to be our fair share of the upkeep and the cost.

As you know the purpose of the County Roads System from its inception has been to encourage the construction of market roads throughout the Province of Ontario. Some 10,000 miles is embraced in the system out of a total mileage of 55,000 in the Province. That system has been in operation for the past 15 years, and we have been trying to assist the different counties which have entered into the construction of highways. That is the situation to-day in connection with our highways in the Province of Ontario.

We intend to go on with our work on Provincial highways and to amend our legislation so as to take advantage of the subsidy which we will get from the Dominion Government, and that will readjust the percentages as they stand to-day. To-day we give 70 per cent., and we are asking the municipalities to pay 30 per cent. With the assistance we expect to receive from the Dominion Government, we will not only be able to lessen the amount paid by the Province but we will also be able to lessen the amount paid by the county to a very considerable extent by reducing that 30 per cent., so that we may embrace a larger mileage in the Provincial System than was at first thought possible. I believe the system will grow and extend and will be projected into different sections of the Province before it is completed.

It is unnecessary for me to further take up your time this afternoon. I know the value of your time and the value of your discussion. I know that the papers that will be presented here for discussion will be practical, and the time taken up in frank and open discussion will be time well spent. I wish this organization which has done so much in the Province of Ontario to stimulate and keep alive the struggle for good roads, every success. (Applause.)

MORNING SESSION

March 6th, 1919

"ROAD MAINTENANCE"

F. A. Senecal, County Road Superintendent, Prescott and Russell

During the last year or so there has been so much said and written in regard to highway legislation, road construction, and the classification of the roads, that perhaps the largest problem, as it stands to-day in this Province in regard to the general improvement of the roads, seems to be forgotten.

The obvious reason for this resides in the fact that a great change in public opinion has taken place in many localities. The people to-day seem to favour a speedy construction of high class roads, where, only a few years ago, it would have been impossible. Scores of good roads enthusiasts are developed every day, and all have ideas of their own—more or less practical. One thing, however, to be commended is the generosity of some of them. They are ever ready to give their services free of charge—especially advice—as to what must be done for the improvement of the roads in our Province.

Some time ago, at a large meeting in the City of Ottawa, the problem of road maintenance appears to have been solved in a rather startling manner. A so-called road expert—who, by the way, is a well-known lawyer—was giving a powerful address on road construction. After drawing a rather dark picture of the roads in our Province and deploring the inferiority of the construction of some roads he had travelled over, and which he said were intended to be permanent when built a few years ago, he told his audience how easily "he" would overcome this very problem of road maintenance. He made this remarkable statement: "When building your roads, build your maintenance 'in' your roads." Inferring, I presume, that a road, when properly constructed, would require no maintenance whatever. This statement, strange as it may appear to be, seemed to meet with the approval of his audience.

Unfortunately for us who are gathered here to-day, and who are so deeply concerned with this very problem, this "genius" did not give us his formula; he did not tell us how this could be accomplished, i.e., what kind of construction he would recommend that would be so permanent that it would do away with the problem of maintenance altogether.

No public office would be too high for the man who could devise a system, or material of road construction that would not require any maintenance after its construction. His name would go down in history as a public benefactor. This lawyer's advice on road maintenance may sound very plausible, but we must admit that this problem cannot be disposed of in this manner.

True it is that a competent engineer, when supplied with all the information in regard to the nature of the traffic over a certain road, can lay out plans and specifications of a road that would meet those conditions and determine the approximate cost of the materials most suitable for that particular case, but never can a road be so constructed that it will stand under heavy traffic without a proper system of maintenance.

Sometimes we are pointed to the famous roads in Europe such as the Appian Way, built by the Romans about 315 B.C., and also to the roads of France and

England, also built by the Romans after the Roman invasion, as models of efficiency and permanence, but these so-called road experts do not seem to realize that there has been a change in the condition in the world since the birth of our Saviour, or since the invasion of Britain by the Romans.

Marvellously as some of these roads in Europe have stood the wear and tear of centuries, none of them have escaped from the natural consequences of the improved means of transportation over those roads. In fact, all the roads that are left have been resurfaced, and some of them many times, and this invariably according to the nature of the traffic passing over those roads.

In this country the conditions are so different that we cannot always be guided by the experience of older countries. Our sparsely settled population, climatic conditions, and other matters, make the problem of road building and maintenance altogether different to that of the older countries.

With the advent of the motor traffic over the roads, new conditions are being met with every day. Roads built only a few years ago to carry a certain class of traffic are now inadequate to carry the increased traffic and show evidence of deterioration on account of the new conditions. I, for my part, would not always charge that to deficiencies in construction.

It was not my intention to take up the question of road maintenance as it presents itself in connection with the various types of road construction. This would take more than the scope of one short paper on this subject would allow. My intention is merely to open up the subject in order that several amongst you may give us the benefit of their experience, especially as to the proper method of dealing with a most important problem because it affects nearly 90 per cent. of the roads in Ontario.

When we stop to consider that about 90 per cent. of the farm products has to pass over those roads before reaching the more permanent roads or the railway stations, we may well ask ourselves if we are really giving to this question all the consideration it deserves.

To my mind, an ideal organization of road maintenance should be prompt, systematic, and continuous.

It should be prompt because when once the need of repairs becomes apparent, it serves no good purpose to delay its execution. The longer the delay, the more difficult they become and may soon develop into a source of liability for damages. Moreover, the action of the water remaining in the sub-grade soon affects its firmness and would ultimately destroy the roadbed entirely.

It should be systematic because the best results in road work are obtained only when a well-planned system of maintenance is scrupulously adhered to and followed to the letter.

Finally, it should be continuous because no organization can be called complete unless the various sections are united together under the patrol system, which is generally followed on the county roads to-day.

There are a few other points which, I believe, should always be borne in mind by the superintendent when laying out his plans for heavy maintenance work on the roads. These are the proper location of the graded roadway, and also the question of providing sufficient draining to the roadbed. No labour can be employed more profitably than that of locating the road properly, and having done so, to place the under-drains wherever required, thus ensuring a perfectly dry roadbed before beginning the work of constructing with stone.

These two points cannot be too strongly emphasized because the conditions of the soil and other matters vary so much that each wet spot seems to present a

problem of its own. It is always desirable to have its solution before attempting any road construction.

The tools generally employed to maintain the roads are graders and drags. With proper handling, these tools render excellent services, but sometimes they are useless in the hands of an incompetent man. I have heard the statement made to me that road drags are useless to maintain earth roads. Upon investigation into the matter I found that it had been experimented under most unfavourable conditions.

In my experience the proper time to use a drag on the road depends on two factors; to wit, the nature of the soil, and also the traffic over the road. An earth road mixed with gravel should be dragged when very wet, as also when the traffic is light on any road. But, when the traffic is considerable, it is useless to drag it until the earth will have sufficient body to prevent cutting by the wheels of vehicles. This matter, however, can be easily adjusted by giving a few trials with the drag under the various conditions of the road.

There is also another matter in connection with road maintenance that seems to be overlooked because it does not affect all the counties of the Province to the same extent. I would refer to the maintenance of winter, or snow, roads. In the northern part, as also in Eastern Ontario, snowploughs and rollers are used in many localities. Both have their merits, but considering the uncertainty of the snowfall in some parts of the Province, I believe that the ordinary land roller answers the purpose quite well. It is better to begin when there is eight or ten inches of snow over the road and roll thereon after each snow storm if the best results are to be obtained. If its use is delayed until there is a foot or two of snow over the road, it is practically useless to roll the road. The action of the roller in packing down the snow provides a smooth road, free from "pitch holes" which are sometimes prevalent during winter.

In conclusion, I must say that the success or failure in road maintenance depends largely on the spirit of hearty co-operation of all the men connected with the work. Nothing should be neglected that will tend towards this end. The superintendent should endeavour to create some emulation among his foremen with the view of obtaining the best results for the money expended under each of them.

THE CHAIRMAN: We will leave the discussion of Mr. Senecal's paper until we hear from the Hon. Mr. Henry. Mr. Henry has always been a very active good roads man in connection with the Association. He also has a practical knowledge of construction, having been a member of the Toronto and York Commission for a number of years; he is, therefore, in a position to give a very interesting address on road matters. I have much pleasure in calling upon him to address you.

ADDRESS

Hon. Geo. S. Henry, Minister of Agriculture for the Province of Ontario

Mr. President and Gentlemen of the Ontario Good Roads Association:

I am very pleased as a member of the Good Roads Association and secretary for a number of years to see such a large turnout this year. Road building in the Province is evidently a very live subject.

This is the 25th anniversary of the Ontario Good Roads Association; it has had its ups and downs. Some years it even did not have a convention, but for

the last ten years we have had an interesting gathering in this building and elsewhere, looking towards the good roads propaganda more than anything else, enthusing the people and through them the Government of the Province in the desirability of improving highways. We have now in mind a very up-to-date and comprehensive system. In a general way, I do not know of any better system in any of the other Provinces or States to the south of us. We have the endorsement and the promise in legislation of the Government that it is willing to give assistance in a very comprehensive way.

I want to give you two or three figures that I found in a report of the Highway Department of the Province for 1917 which brings to my mind some idea of the possibilities of improvement. In a general way we have motor revenue ear-marked for highway improvement. In 1917 we received something around $950,000 from this source, and last year something over $1,200,000. These figures are large. In 1917 there was only one motor for 39 of the population in the Province. In the United States there is a motor for every 20 of the population. In Saskatchewan, one of our new Provinces, there is a motor for every 12 of the population. In Iowa there is a motor for every nine of the population, and remember that Iowa is an agricultural State. It might appear to one at a cursory glance that it would be a manufacturing State that would have the highest percentage of motors according to population, but that is not so; it is the agricultural States that make the greatest use of motor cars.

We have only one motor car for every 39 of the population, and yet I think, we as a Province compare favourably with Iowa, and they have a motor for every nine. That will give you some idea of the possibilities of the motor taxes of the future which are largely marked for highway improvement.

We have been talking of a trunk road the last few months and also of Provincial county roads and minor county roads which have always been a subject of discussion in meetings such as we have to-day.

I want to throw out a word for the township road. Our system is not going to be complete unless one can take his car (I take it for granted that the farmer is going to have a car, and I think the figures quoted show that the man on the farm must be able to use his car all the year round except where snow interferes with it) on every road in the country. It should not be a condition that there will be bad roads in the spring and fall as we have had for so many years. That condition is going to pass for more reasons than one.

Possibly it is not appreciated by the average road enthusiast what a change has taken place in the opinion of ratepayers as to the improvement of highways. Once the ratepayer gets the notion that the road should be of a higher standard he is not going to be satisfied with minor roads being left in their present condition. I have all along maintained that the improvement of one road reflects back on all the roads in the vicinity because of the benefits that are so apparent.

Our difficulty in road improvement has largely been that we have not been able to show by example what good results will come and what economic advantages come to a section where the roads are improved.

I want the members of municipal bodies to appreciate that they should, if possible, anticipate the desire of municipalities for improvement of minor roads. The average man on the farm appreciates the economic advantage of a motor car and the economic advantage of a good highway from his farm to his market all the year round. He appreciates that this is part of his equipment. His equipment is not complete unless he can get to market at any time of the year. The most

efficient equipment is necessary for the greatest advantage and the largest returns to the man on the farm. For that reason I would suggest to municipal representatives that they anticipate township road improvement.

The county is now assuming the main burdens that the municipalities have been worrying with up to the present time, but you must not forget the township roads. Don't let your idea be that you are going to drop the township roads and not keep them up. You will find that the residents of your municipalities will appreciate any relief you can give them along that line. I speak of this with some experience. I was in municipal life for eight or ten years, and I have been connected with highway improvement in one form or another for the last fifteen years.

The change that takes place in a county when you get your main roads—the heavily travelled roads—improved has been reflected back on the other roads. I have seen that very clearly in the metropolitan townships surrounding the city here. Our roads in York township are from 100 to 200 per cent. better than they were ten years ago, and that is directly due to the reflex action that comes from the county system being improved. In this way, we relieve the objections that the men living on the side road have to highway improvement. He says, "My road is not improved; somebody else's road is improved." There should be no argument against the greater consideration that has been given to the more heavily travelled roads. It is along that line that we have the Provincial Highway—let us call it the 70 per cent. highway. With the promise that the Dominion is going to assist us, a portion of the Provincial funds will be spent in that way.

Then we have the 60 per cent. road and the 40 per cent. road. There is no real reason why any man in the Province should say that expenditure should not go on because he is not having any direct benefit. The direct benefit will come to him in reflex action. It will reflect back to the average township road.

I sometimes think that we do not appreciate the country we live in. There is not a similar tract of country—similar in size—that is of greater value, that has greater possibilities than has this old Province of Ontario. (Applause.) We have been slow to develop but we have things started, and there is no organization in this Province that has greater weight than the Ontario Good Roads Association, and you should all go back to your municipalities with the idea that you are vying with the adjoining municipalities in building the best possible roads.

We have worked many years without seemingly very great results, but we have come to the time now when we are going to take a step forward. In road building we are just finding ourselves, and we are in a similar position to what we were in the war. We are finding ourselves. When the boys were called upon to take over a portion of the line in Flanders, they showed the kind of mettle Canadians are made of, and now we are about to find ourselves in highway improvement. There is not anything that is going to be of greater advantage to the people of this Province from an agricultural standpoint than the improvement of our highways, from the Provincial highway down to the minor side road with only a single resident upon it. When we appreciate these advantages, we will be on the highway of success.

Mr. President and gentlemen, just a word before I sit down. I have assumed duties that are not altogether those of highway improvement but they are so closely connected with it and I have always seen such great advantage in highway improvement for the betterment of our agricultural conditions, that I have not forgotten the benefit of highway improvement. All road organizations in this Province have

my hearty co-operation at any time, and I trust you will continue improving and bettering your highways, looking to a great improvement and development in our Province generally. (Applause.)

THE CHAIRMAN: I am sure the Association will appreciate very much the Honourable Minister's splendid address. When we consider that as well as being Minister of Agriculture he is a practical farmer and has had practical experience in road construction, his remarks will be fully appreciated. Mr. Henry has had large experience in the construction of roads in the vicinity of Toronto, and I am sure he will be pleased to answer any questions if you desire any information.

DELEGATE: Mr. Henry refers to the prospect of more assistance from the Provincial Highway Department—that the Province will give more than 70 per cent.?

MR. HENRY: It is expected that Mr. Campbell from Toronto will be here and he will be able to speak as to that. In general, I understand that the Federal assistance is to go towards improvement of highways.

MR. SKAGE, Brantford: Since Mr. Henry has spoken of Provincial highways as 70 per cent. highways, to what extent could that appellation of 70 per cent. apply to Provincial highways? The Department has only contributed 40 per cent. previously. It is quite apparent that a large proportion of this Provincial highway will be considered as a suburban area upon which the Province will pay only 40 per cent. I would like to ask that if that suburban area is considerable on a Provincial highway, will the Province contribute more?

I am interested in the Provincial road between Hamilton and Brantford and a considerable portion of that, I have no doubt, will be described as suburban area and the Province will only pay 40 per cent. of that. Would it be possible to persuade the Government to limit to as small an extent as possible that suburban area so that the Government may in fact as well as in name, actually contribute 70 per cent. of the cost?

Another question I would like him to answer is: In the case of a road running through minor municipalities in a county, how is it proposed to relieve that minor municipality of the burden of its 30 per cent.? Is it proposed that the burden shall be spread over the whole county?

MR. HENRY: I have been connected with the Commission in York County since its inception eight years ago. Up to the present, the Government have not seen their way clear to give any more than 40 per cent. assistance to the county in the urban area. That is the arrangement between Toronto and York. We have something like 225 to 230 miles of suburban roads in the County of York on which the county pays only 30 per cent. I do not think we will ever look on anything as actually finished and ended. At the present time the Government do not see their way clear to assist to any greater percentage than they are doing in the suburban area sections.

On the Toronto and Hamilton Highway it has been suggested that the suburban area really runs from Toronto to Hamilton. I do not know how that works out. Around Toronto there is a vast suburban area and around Hamilton there is considerable suburban area, but around the smaller cities and towns the percentage is comparatively small. What the result will be in regard to the Federal grant, and what effect that will have on the operation of the Act I cannot say.

With regard to the other question, in some cases I understand it is the township, and in other cases it is the county. Where the county already had control of the road, they contribute. As I have said before, these things are more or less in a formative stage, and I do not know that figures are absolutely fixtures.

WARDEN OF THE COUNTY OF WENTWORTH: I would like to ask if Mr. Henry wishes us to infer from his remarks that where a Provincial road runs over a county road, "municipality" would read "county," and where it runs over a township, it would read "township?"

MR. HENRY: That is what I understand.

WARDEN OF WENTWORTH: How are we going to overcome that difficulty where the road follows the township east and west of Hamilton? It means that the township will be swamped if they have to pay 30 per cent.

MR. HENRY: We have these inequalities, and I think it is quite possible that these matters are under consideration for legislation this year, so as to relieve any hardship.

DELEGATE: The Statute fixes the limit that an urban area can be taxed, which is half a mill. I think in some places it is larger than it should be.

MR. HENRY: As far as I understand the law, it is a half mill. Toronto has felt very restive under that because it would mean about $300,000 to Toronto, and although we have never assessed up to the present beyond about one-tenth of that, $30,000, we have power to ask for $300,000. In the smaller municipalities the feeling is that it is not high enough. It may be that small urban municipalities should be assessed higher, but half a mill is high enough for a large municipality.

MR. ENGLISH: This is a matter that we have had before us for a few weeks in the Brantford Suburban Road Commission. Brantford's proportion on a half mill basis is about $9,500, and in order to make a showing, we are obliged to assess Brantford for the full amount. We understand that in the Provincial highway, the city will be taxed the 30 per cent. over and above the half mill.

MR. HENRY: I do not think there is any provision whereby the city is relieved of the 30 per cent. There is no provision to take money direct from an urban municipality and spend it in an adjoining municipality. I do not think it deals with the levying of rates for Provincial highways.

MR. ENGLISH: Can we take it for granted that where a Provincial highway goes over a present suburban area, that the Provincial Highway Commission will take over and the Suburban Area Commission will be relieved of the half mill on the dollar and will be able to spend it on other roads?

MR. HENRY: As far as my own personal experience goes, they have not taken any of the suburban areas over yet. In Scarborough Township, the Department asked us as a Commission to take care of a piece of road that will ultimately be part of their system, and we are taking care of it in the meantime.

MR. FAIR, Kingston: The most we can get in Kingston on a half mill rate is about $6,000 or $7,000. They have designated about seven miles of suburban road, and if they come in for the 30 per cent., there will be nothing left.

MR. ROSE, Brantford: I wrote the Department of Highways in Toronto some little time ago with regard to this very question, and they told me that the 30 per cent. in suburban districts will be over and above the half mill on the dollar. The letter I received was from Mr. George Hogarth, Chief Engineer.

MR. MALFORD: The discussion so far has been altogether with regard to suburban areas. I would like to ask what position a town stands in that is not separated from the county for municipal purposes?

MR. HENRY: An unseparated town is part of the county organization, and it pays its rate regularly into the county.

MR. FAIR: Could not the Government amend the Act with regard to that?

MR. HENRY: The Act was designed so as to have the urban municipalities, the large centres, assessed in the improvement of the roads outside. The motor vehicle tax is along the same line. Possibly the money contributed from licenses comes from residents of the urban municipalities. I think in New York State the urban municipalities pay something like 80 to 90 per cent. of the cost of the main trunk roads, all outside their own borders.

MR. W. M. MACQUILLAN, Dunnville: As Warden of the County of Haldimand I rise to thank Mr. Henry for the good advice he has given us. We should take home to our respective municipalities the information that the Dominion Government has promised from $20,000,000 to $25,000,000 to assist the local Government in building good roads, and I think it is up to the respective reeves here and their councillors in rural districts to bring the side roads and concessions up to a good standard, so that we will have good roads leading to the main highways. We can improve our clay roads a great deal more than we are doing at the present time by putting in better drainage. Why should not all the county councils jump into the matter of road improvement at the present time when we are offered 70 per cent. on Provincial roads, 60 per cent. on Provincial County roads and 40 per cent. on waterbound macadam. The great trouble with the waterbound macadam is that they are only eight or nine feet wide, and when two cars meet, they throw the stone out and pull the mud in. If we had wider roads it would be better. I think we are indebted to Mr. Henry for the work he has done and for the work he is doing in the Department of Agriculture. (Applause.)

DELEGATE, Stratford: Mr. McLean spoke to us in Stratford as to Federal aid, and he said it would be applied largely to the 30 per cent. borne by the rural municipalities. Therefore I think we can all be well satisfied that the $20,000,000 will be largely applied in that way. Even if it is 50-50, it will reduce the 30 per cent. to 15 per cent.

DELEGATE: The great trouble is that our roads are not properly drained, and in some municipalities they are afraid to rip up a road and put it in proper shape for fear they will lose a vote. I would like to ask if it is not possible to make townships put culverts into farm entrances so as to give proper drainage. This work should be charged up to the whole township.

DELEGATE: We give the farmer the tile and let him put it in. Some of them are in a great hurry to get the tile, and then they lay it up against the gate for a couple of years. I sometimes feel like asking them, if they are not going to put it in, to put it behind the barn so that it won't be so prominent.

DELEGATE: I think the Statute should be made plain, and the municipality should be compelled to furnish one approach to a farm, or the law should be made so that if a farmer does not put it in, within a certain time, the township can do it for him and charge the cost in his taxes.

MR. CHAS. TALBOT, Middlesex: I think some legislation should be brought down to cover that point.

MR. MACKAY, St. Thomas: I would like to make the suggestion that the discussion be confined to the programme this morning, and this afternoon there will be every opportunity to bring up these other matters.

ROAD MAINTENANCE

DISCUSSION LED BY:

MR. CHAS. TALBOT: The great difficulty with the maintenance of highways is that we are very much handicapped for funds. I find that 20 per cent. of the Government subsidy is not sufficient. As far as I am concerned I am positive it will work in the interest of the Government and would not increase their subsidy one cent if that was changed and put on an equal basis with the construction, 40 per cent. If the Government thinks that is too much, then I think, in order to bring it to a systematic basis, the 40 per cent. should be reduced. We must get away from this handicap, and if you want the roads maintained, it is necessary to have an equitable subsidy; otherwise it is impossible to maintain the roads.

ADDRESS

S. L. Squire, President, Dominion Good Roads Association

Mr. President and Gentlemen of the Convention:

I am a little nonplussed at being called on at the present time. It was expected, according to the programme, that I should introduce the discussion *re* Federal Aid after having listened to Mr. A. W. Campbell, the Federal Commissioner, but unfortunately, Mr. Campbell is not with us at this time. Federal Aid is creating a great deal of interest to road builders of the Province. I am inclined to think, Mr. President, that Federal Aid is simply the culmination of an idea in road building.

Road building began with the individual and is ending with national co-operation. If you have followed the question of road building historically and otherwise, you will find that the first roads were built by individuals, the individual property owner being made responsible for the road which fronted his own place, and he only received municipal co-operation when he was required to build a bridge larger than that over some ordinary stream. You will see that in the first instance there was absolutely no co-operation in connection with the responsibility for road building. This seems to have enlarged as the days went by. The Dominion Parliament placed the responsibility for road building in the hands of the Provinces, and road building then was a Provincial matter and not a Federal matter. The Provinces in turn seemed willing to shelve or discharge their responsibility by enacting the Municipal Act with its amendments and placing the responsibility of road building upon the various municipalities.

I need not tell you that for over 100 years the municipalities have been responsible for the construction and maintenance of highways within their own sections. Then the municipalities in turn seemed to be willing to discharge their responsibility, as far as road construction was concerned, in many sections, by appointing pathmasters, and that brought out the idea of personal responsibility and not the idea of co-operative responsibility in connection with road building. The result was that there were some sections which were highly developed, but there was no uniform plan, and there was certainly a great deal of experimental work done.

In the early part of the last century it became quite apparent that the individual could not assume the responsibility of building all classes of roads.

Then as now, some roads were more improved than others, and because a certain man happened to own property on one of these front roads which was subject to a great deal of traffic, it became quite apparent that the individual in these districts could not bear the total expense of maintaining the road. That brought about a change of affairs which led to the introduction of toll companies.

It has always been interesting to me to know that the first stock companies that were formed in the Province of Ontario were formed in connection with the building of toll roads. Where it became necessary to build an expensive bridge or to undertake an expensive bit of road making a toll company was formed, and that was the first co-operative idea in connection with road building. An assessment for travelling over these roads was made upon the people using the roads and not upon the municipality at large.

About the time this Association had its first birthday, the municipalities commenced to recognize the disadvantage of toll roads, and decided to undertake some larger idea of co-operation and endeavour to abolish these toll roads. If we can go back 25 years to the first meeting of men interested in the doing away with toll roads, we would find that that meeting was composed of men very much as we are to-day—men who had municipal experience and men who desired to see better conditions within their municipalities.

A law was introduced which made it possible for the county to purchase the toll roads within the county. You will notice that the individual idea is enlarged from the individual to the corporation, from the corporation to a county. Certain counties undertook to purchase the toll roads, and a bill was brought down in 1901 and $1,000,000 was set aside for the assistance of counties that formed county systems. That million dollars was set aside largely for the purpose of assisting county organizations to buy up the toll roads, and to remove the toll gates from the roads of this Province.

As soon as that bill was brought down in 1901, then individual responsibility reached the point of the Province assuming certain responsibilities in connection with road building, and now we find to-day that the Federal Government have announced that they are willing to set aside a certain sum. We no longer have the idea of individual responsibility in road building, and it is not confined to the county or the Province, but to-day it becomes a nation-wide responsibility and it runs out the cycle in the development of that.

You can all remember when every municipality had within itself its own carriage shop, paint shop, tailor shop and its own local manufacturing concern. To-day these local or individual responsibilities which seemed to rest upon every municipality in order that within itself it should be self-contained, have been absorbed in the larger idea of co-operation.

I am satisfied that one of the great lessons which has been learned by this war is the interdependence of every man upon every other man in the district.

I need not tell you that Sir Oliver Mowat as Premier of this Province was one of the greatest knights championing Provincial rights. He demonstrated at Ottawa that there were certain rights which the Province had, and he made himself so felt that the Federal Government hesitated to take any interest in matters which might be or had been considered as Provincial. When the matter of Federal Aid was first approached, a great many members of the Federal Government said, "No, this is a Provincial matter, and the Federal Government have no right to interfere." However, we know that the idea of public ownership has also grown, with the taking over of the C.N.R. as part of the National Railway

System, and that there are three important means of transportation recognized, that of the railway, the waterway and the highway. I always like to say the greatest of these is the highway.

When it became apparent to the Federal Government that they were interested in that which would bring profits to their own roads, they felt that it was time and that they were justified in assisting these roads which would be made feeders to their great national railways.

I remember Sir Thomas White saying to a deputation at Ottawa some time ago asking for Federal aid, that while the members of the Government had heretofore touched these matters of Provincial assistance very fearfully, he had come to the conclusion that since the Government of the Dominion of Canada had assumed the proprietorship of certain of our great transportation lines, and as the tonnage to support these lines can only be taken from the points of production, he felt that they would be building up business for their own roads by assisting the highways throughout the Province. He as Prime Minister was sympathetic with the idea and felt that no local or Federal Government could afford to stand aside and refuse to give assistance to highways.

There was another thought that no doubt was in the mind of the Federal Minister, and that was when municipalities were responsible for the maintenance of their roads within the municipalities, the use of these roads was largely local. I think it is quite safe to say that in the middle of the last century and possibly pretty well to its close 90 per cent. of all traffic over roads in any municipality did not go beyond the neighbouring municipality, and the interest of the road was largely local. However, with the development of the motor, we find that it is a bird of passage and no longer can the use of a highway be confined to the local municipality. And Sir Thomas White was of the opinion that it became not only a county but a Provincial or a National matter, and as such you can at once understand that the Federal Government felt that they had at the present time more than a passing interest in the building of roads.

The Hon. Mr. Reid, Minister of Railways, stated at a banquet held in Ottawa under the auspices of the Eastern Ontario Good Roads Association some three weeks ago, that a bill would be introduced to assist in the building of roads. He stated there was a quarter of a million miles of roads in the Dominion, and that these roads might be divided into three classes—1st, 2nd and 3rd class roads. In round numbers he said the first class roads might be considered to be about 10,000 miles; the second class roads would possibly be 40,000 miles, and the third class roads would be the remaining 200,000 miles. He said the Federal Government have thought that they have the right to assist in building these arteries which are called first class roads. In that way it is easy to compute that the idea of the Federal Government was that they would assist in the building of the first 10,000 miles.

We have in the Province of Ontario about 2,500 miles in connection with which the Federal Government will lend assistance, and that will not only embrace Provincial Roads, but may take in County Provincial Roads as well, so that it does look as if the municipalities are going to receive a certain amount of consideration in connection with Federal Aid.

There are suggestions that can be made in connection with the present legislation, and this seems to me an opportune time to make these suggestions. You can appreciate that the Provincial Government heretofore has always had to frame its legislation absolutely independent of Federal Aid, and now that Federal Aid is about to be given, it will be quite necessary to readjust the legislation

and apportion all costs. I am quite sure you can leave that safely in the hands of the Highway Department and the Minister of Public Works, and I am quite sure that when the legislation is brought down, no section of this Province will be unfairly dealt with.

There is a part which is interesting to me, and that is the stand which has always been taken by this Association in connection with Federal Aid. I think it was in the year 1912 that this Association arranged for a monster demonstration at Ottawa to ask the Federal Government to set aside at that time the sum of $50,000,000 for the assistance of highways throughout the Dominion. That was possibly one of the most important delegations which ever approached the Federal Government. As far as this Association is concerned it has consistently followed the idea of the responsibility of the various Governments, Federal, Provincial and Municipal, in connection with our roads. That delegation was well received and as a result a bill was introduced by the Hon. Mr. Cochrane, but it was killed in the Senate. That shows you very clearly that this Association is certainly non-political. It is very strange but this Association desired to see that bill which was introduced at that time killed, because it was felt that there were some parts in the bill that were not according to the idea of the Association.

The Hon. Mr. Cochrane felt that the Federal Government should undertake the road building within the various Provinces, and we felt that while the Federal Government should assist in the building of roads from a financial standpoint, that they absolutely had no business in road building.

Some years later another delegation from this Association went to the Federal Government and said, "We believe it would be a proper time to introduce another bill," and I think this matter will be some part of the reconstruction programme for the period immediately following the declaration of peace. We were well received and the Hon. Mr. Cochrane had evidently changed his mind somewhat in connection with some of the phases of that bill. However, other questions came up at that time and nothing was done.

I am satisfied, Mr. Chairman, and I do not wish to take the position of the celebrated tailors of Tooley St. You will remember that they were desirous of receiving certain concessions from the Parliament in England, and they signed a petition and they started off their petition in this way: "We, the people of England." I do not wish it said that the Ontario Good Roads Association are taking credit for what has been done or that the Federal Government brought down their bill because of the influence of this Association, but I do wish to say that this Association for 25 years has consistently followed the idea of co-operation in respect of financing roads within the Province.

There was a deputation appeared before the Hon. Mr. Reid in December last and this Association was represented.

In what way should Federal assistance come to us? That is a matter to be considered. I am satisfied that the men who are attending this convention feel that Federal assistance should be given to every class of road within the Province. In what way have we the right to expect the application of this fund which may be received from the Federal Government, and what interests has the Federal Government in this expenditure? It is perfectly fair to assume that if the Federal Government contribute a portion, whether it is 40 per cent.—and I believe that is the proportion they have mentioned in their bill—40 per cent. towards the construction of certain highways—if they contribute to the extent of 40 per

cent., I would expect that since the Federal Government are answerable in the end to the people, they should have something to say as to how that money shall be expended.

While we as an Association have always been opposed to the Federal Government entering the field of highway construction, we believe they should have something to say in the selection of the location of these roads which shall be assisted by the Federal Government. For instance if it is decided that certain roads are more important than others, and if it is decided that between certain large centres the traffic is much heavier and for that reason roads between these large centres should be considered main roads, and that these roads should receive Federal assistance, there is no objection, as far as I see, to have the Federal Government say that they are willing to assist as to these roads. Suppose it is the intention to have a road from the Quebec border to Windsor. The Federal Government might well say to the Provincial Government, "We will assist in building the main road between the Quebec border and Windsor," but I do not think the Federal Government have a right to come in a minor municipality and say, "That road shall be a certain road through the municipality." I believe that is a matter which has to be settled between the counties and the Province and not between the counties and the Federal Government. If the Federal Government feel that it is necessary to have a main road for military or other purposes between Toronto and the Georgian Bay, they would have a perfect right to say, they will assist in building the road between Toronto and Georgian Bay, but I do not think they would have the right to say that road should go along certain concession lines and touch certain towns. I believe that is a matter which will have to be left to the Province. I believe the Federal Government would have the right to ask that a certain standard of road should be constructed. I think they could well say, "We will not stand for the building of anything but a first class road," and insist on a certain standard of construction, but I do not believe they have a right to construct these roads. If they took that stand, they would be interfering with Provincial rights.

Q.—Do I understand you to say that in the location of roads, it should be submitted to the people?

MR. SQUIRE: No, but what I do say is that since the Federal Government would be asked to contribute 40 per cent., they would have the right to say that the money should be spent on main roads, but I do not think it is necessary for them to say that the roads shall come along through a certain township in a certain position.

Q.—If the people had the say I would not like to say when you would get the road.

MR. SQUIRE: Since it has been announced that the Provincial Government are going to construct certain roads, there has been a regular continuous path of representatives from the various sections applying for consideration, and if the selection of the road is left to the minor municipalities, I imagine the municipal officers would be pestered by other property owners to the same extent as the Provincial Government has been interviewed by the various municipalities. If the Federal Government had the right to select these roads, I can imagine that the members of the Federal Government would be besieged in the same way, and that would complicate matters.

The assessment of cost is always a vital question in road building, and I suppose the time will never come when we will be all satisfied that we have received

a fair deal in this matter. We are coming pretty close to the ideal that we recognize; that the responsibility for road building and payments rests with the Federal Government, the Provincial Government, the minor municipalities and the individual. I believe we as individuals have the right to assume certain responsibility in connection with the assessment and cost. I cannot believe that public money should be spent for private advantage without certain assessment upon the individual who is receiving the advantage. I believe that is fair to the whole community. I believe we have to-day reached a new epoch in road building, and we have come nearer to these ideals than perhaps we have ever before.

I thank you very much. I have only touched the question of Federal Aid in a very hasty disorganized manner as I had hoped to follow Mr. Campbell.

D. W. Walls, Warden of the County of Ontario: This is the first time I have had the privilege of meeting with the members of the Ontario Good Roads Association, notwithstanding the fact that I do not live very far from this city. I wish to congratulate you on the success of this convention. I would suggest that when you hold your next convention that you secure a more commodious room. I did not think I would be asked to take part in this discussion had it not been for the resolution that was passed by the County Council of the County of Ontario.

Ontario County is very long. We have a Provincial highway passing through the county at the southern end. We also have the Provincial county road system, and the county road system. There has been a rather indefinite feeling in the County of Ontario as to who should pay the 30 per cent. towards this Provincial highway. The Kingston Road was designated as a Provincial highway before our county road system came into operation. This is only the second year we have been in the county road system. Some of us think that the municipality throughout is going to be taxed rather too much in order to pay this 30 per cent., and having that in view, there was a resolution passed by the county council of the County of Ontario, and a copy was sent to the clerk of each county in the Province. That resolution was for the purpose of having the counties interview Sir Thomas White in regard to Federal Aid. It has been suggested that this aid would be applied to the Provincial highway system. I am not in favor of that on account of the geographical situation of our county. We have ratepayers in the Township of Rama, probably 80 miles from the county road. It is not possible for them to use it very much. If the Federal Government gives assistance, as has been intimated and has been promised by them, to the extent of $20,000,000, I am in favour of having it distributed among the different systems on an equitable basis, and therefore help every ratepayer throughout the Province of Ontario. I am very much pleased with the progress of this convention and have been very much interested in the discussion.

The Chairman: We will have an open forum this afternoon when all matters of interest can be discussed.

Meeting adjourned.

AFTERNOON SESSION

The Vice-President, J. J. Parsons, in the Chair.

The Chairman:

This is to be an Open Forum Session, and we trust that anybody who has anything to bring up will do so.

Major T. L. Kennedy, Dixie: The old roads built by the Romans are kept up by two or three men. I have travelled over the road from Dover to London, which is the oldest Roman road in England, and evey few miles on that road we would see two or three men patching it up, the idea being that "a stitch in time saves nine." As soon as they see a little hole, they repair it, and every few years it is re-surfaced. I also noticed in France on the road from Calais to Paris, which is one of the finest roads I ever saw, 27 feet wide, level and straight, wounded soldiers employed taking out stones and replacing them by new stones, and the road was kept in splendid shape, and was never allowed to get into disrepair. That system might be used in this country on our county roads to keep them in shape. I realize that it is a question of getting the people educated to the patrol system. I would like to ask Mr. Senecal if he ever used the patrol system?

Mr. Senecal: We are indebted to Major Kennedy for the information he has just given us as to the roads he has seen in England and France that have contributed so largely to our great victory. We are not using the patrol system in our country as much as we should. We have a man appointed who patrols from four to ten miles of road. They go over the road and repair it when necessary. I do not think there is any better system because the moment you leave a depression in a road, it stands to reason that water accumulates and destroys not only the surface of the road but also the foundation.

Mr. Fair: Who will maintain the 70 per cent. road? Will a supervisor be appointed by the government or the municipality?

Mr. Senecal: According to the Act, these roads are Provincial roads; consequently it will be the duty of the Province to attend to the maintenance. I do not think the county will have anything to do with that. The county maintains the 60 per cent. road. I happen to be one of two Frenchmen in this audience and that is why I feel so much at ease. It always behoves the majority to be generous, and that is why I can speak with all frankness to-day.

Our worthy Secretary, the Hon. Mr. Henry, mentioned that we were celebrating our 25th anniversary, and it is a custom on these occasions to look back on what has been accomplished and to formulate plans for the future. I am happy to be able to bring to this Association the greetings of the French Canadian population of the Province of Ontario. It has been a glorious privilege for me to be connected with this Association for the last five or six years, and the result has been very great for me. The benefit I have derived from meeting with the English speaking population has been very great. I believe I am saying the right thing when I say that the French people of this Province look upon this Association as the greatest agency we have to promote the good feeling that should exist among the different people who live in the Province. It so happens that our forefathers have been fighting together for the greatest cause for which a country ever shed blood, for the triumph of freedom over oppression, and we in the Province of Ontario and the Dominion of Canada have a splendid opportunity before us of understanding the viewpoints in connection with each other.

DELEGATE: Would the difference in population and difference in climate militate against this country in regard to maintaining such roads as you speak of?

MAJOR KENNEDY: Yes. We cannot look upon the roads of France and England and expect to have the same kind of roads here, because their population is so much greater, and they can afford to do work that we cannot.

REPORT OF THE RESOLUTIONS COMMITTEE

MR. K. W. McKAY, St. Thomas: Gentlemen: This afternoon we are going to discuss generally all questions and resolutions that have been introduced and also any questions or resolutions that any member present may desire to introduce, with the idea that no one should go away from this convention and say that they had not an opportunity of bringing any opinion they may wish to advance before the meeting.

Before considering the resolutions that have been introduced I wish to direct your attention to something that is often overlooked. The keynote of our municipal institution is the equalization of opportunity and expense. All public legislation that does not provide for equalization of opportunity and expense should come in for criticism. We do not want any class legislation. We do not want anyone to be benefited particularly at the general expense. Sometimes councillors blame the Legislature and others for conditions that exist in their own municipality. In order to have perfect equalization in reference to highway improvement, township councillors have a very important duty to perform, especially at the first session of each year, in January, and that is the appointment of an assessor. You cannot have equality of expense in a township unless every piece of land in that township is assessed at its full value. You all know that the properties in your respective municipalities are not so assessed, notwithstanding the affidavit attached to the roll by the assessor, that he has assessed all property at actual value.

The Executive Committee of the Good Roads Association met on Tuesday afternoon, and there was produced at that meeting a schedule of assessments in a township near Toronto showing the values at which certain properties were assessed in 1914, and the values at which the same properties were assessed in 1918. These properties were located along the Toronto and Hamilton Highway—the most expensive improvement of the kind in Canada, and an improvement that has raised property values more than any similar expenditure in this province. That schedule shows that the assessment in 1918 in every case was less than it was in 1914, notwithstanding the added value by reason of the construction and use of that road. To emphasize that I have only to point to one property assessed in 1918 for $2,900, and sold for $33,000. That may be an extreme case, but similar conditions exist in other townships in this province. If you find in the near future that the Provincial Government has found it necessary to appoint a Provincial Inspector to save people from themselves, don't be surprised. This inspector will test out the work of the various township assessors. They have operated in the past by having to pay a small Provincial War Tax. If the properties were assessed to the full value, as they should be, the Provincial revenues would have been materially increased. I understand that there is a possibility that the County Councils may be compelled to appoint valuators for five years, so that there will be equality in taxation.

In a great many counties in this province we have Indian reserves, and the county roads led up to these reserves, and the township road leads up to that

reserve, and the connecting link through the reserve is generally in a deplorable condition. The Indians have not the means or resources at their command for maintaining or constructing these roads, and it has been thought that the Province and the Federal Government should assist in constructing these roads. With the view of having this matter put properly before you, Chief Cornelius from the Middlesex Reserve is here, and I will call upon him to speak to you in reference to that matter now.

ADDRESS

Chief Cornelius, Middlesex Reserve

Mr. Chairman and Gentlemen:

I must tell you that I am pleased to have this opportunity of addressing the Good Roads Association. I know that they have picked out the best men in each municipality to send here, and I know that you are broad-minded men. I have listened with much interest right from the beginning of the President's address up to the discussions of to-day on the questions that have been before you. I am sure the question Mr. McKay has presented to you is of interest to you. First you recognize my nationality; I am an Indian. We talk about this country, of its greatness and possibilities and of its future. You found the Indian here and others have come after him. We have had the Frenchman, as he calls himself, and he has said we must come together to understand each other. I am here that you might understand the Indian better than you have in the past. (Applause).

In the first place you have found him the most loyal subject of this great Empire of Great Britain. You know that he has borne the burden of the winning of this war. I was present with two returned soldiers last night. They represent a small band called the Munceys or Delawares who live lower down the River Thames from where I come. Canada aimed at putting half a million men into the field across the seas. According to the population of Canada, this reserve could hardly send one man, but how many did they send over? They sent 50 out of their small band. There are only 80 voters in their reserve, and from that you should readily recognize the large percentage that they sent. (Applause).

That is only one instance. The Indian did not have to be conscripted; he came forward freely, and I do not think there is a municipality in this fair Dominion that showed such a large number of volunteers as among the Indians. (Applause).

Now for his reward, what is in store for him? You must not isolate the Indian in the reserve and leave him there. He is now there digging out his own life as best he knows how, and there has been an indifference as to what should be done for the Indian. I am glad to say we depend upon you who have large hearts and broad minds and who will take up this question and bring it prominently before our Government.

Mr. McKay does not live very far from the Reserve that I represent, and he knows the conditions, and he is one of the most prominent men in connection with this association. He is the first man I approached who entertained the thought that the Indians should have some chance in connection with good roads. (Applause).

We deal with the Dominion Government. The Provincial Government has no dealing with the Indian. At the same time I think as the Dominion Good

Roads President said, there will be no trouble between the Dominion and the Province, and there will be better understanding. I come here to say that I think it is no more than right that if the Province is going to build good roads, they should uphold the Indian in asking the Federal Government to spend some of that money which we as Indians have contributed to the country. You talk about the Indian not paying taxes. I tell you that the Six Nations Indians, of which I am a part, pay the highest tax of any municipality in this Province to-day. They pay out of their moneys accrued from the Government fund, which is on deposit with the Dominion Government, $40,000 a year, and I asked one of the Chiefs who is in the Council, "What is the rate you have been paying in taxes that is levied upon each man?" And he said, "About $9.00 a head."

Now they do not accept one cent from the Dominion or the Province but they accept it out of their own money. This is our native country, and I think there should be better things in store for the Indians of this country—the aborigines. I know that right-thinking people would not only sympathize, but would go to work and with their voice persuade the Government to enact such laws as to cover these things which I have spoken of.

In the primitive days, we only had a trail, but that day is passing, and the Indian is bound to change; conditions have changed, and the Indian must change. Progress is in the way. Some say that the Indian has been slow to progress, but I tell you, gentlemen, there is a reason for it. You do not know the disabilities under which the Indian has to labour. But I tell you they are going to solve their own problems. There is a movement on foot to-day to unite all Indians and solve these problems for themselves.

I thank you for the privilege I have had of speaking to you. (Applause.)

THE CHAIRMAN: I am now going to ask one of the tribesmen to address you on the same subject. The gentleman has been overseas in the Forestry Department. I have now pleasure in asking Capt. Loft to make a few remarks.

ADDRESS

Capt. Loft

Mr. Chairman and Gentlemen:

I appreciate very much indeed the pleasure of saying a word before such an intelligent audience, on behalf of the Indian. It would not be consistent on my part to occupy your time at any length in narrating all these things which we consider necessary for us as a people. To-day the war, we believe, is over, at least we hope so, and one has failed in his duty if he has not taken some part in that great strife for justice, liberty and freedom. That is something that we see in the newspapers and magazines, and that is repeated time after time by the ablest men in this country and throughout the world. We cannot stand aside and do nothing for common humanity. We must co-operate. Individuals cannot stand alone to-day and be idle, mental, physical and otherwise. It behooves humanity to keep up the spirit of civilization and not to allow it to retro-act. My brother here has said to you that the Indian has identified himself, and I must say in a most magnificent way, in the service of the Empire in this war. (Applause).

You will find the Indian will go back to his hunts in secluded places of the forests of this Dominion of Canada, and he will not be asking much, for he is

not known to ask very much at any time, but the intelligent elements of our community must ask something at the hands of the people of the Dominion of Canada, and for sympathy and consideration for our people. (Applause).

We have to paddle our own canoe, and we have advanced very materially as far as is consistent with our disadvantages. We are endeavouring in the best way to get educated, and we want more education. My brother said something about the organization of all the Indians in the Dominion of Canada to endeavour to solve their own problems and to make themselves better. I hope we will succeed in that great effort. We realize that we cannot do these things without your co-operation and assistance, and there is nothing but Christian sympathy that will help us in this great work on the part of humanity.

In the chaos in which we are situated to-day, it seems that no country knows where it is going to land. Everything is in turmoil after the heat of war that we have gone through. We are all on the same level as human beings. It is for Christianity and humanity to do all they can for the under-dogs in this world. If I have no other mission to follow in my closing days, my ambition shall be not what I can accumulate, but what I can do for my humble and unfortunate brothers. I must say that in any part of the Province there has always been admirable reciprocity between the white man and the Indian in respect to the use of public highways. The Indian has kept up his roads and has never asked a dollar from the white man, and the white man's road has always been free to the Indian.

In view of the fact that the Indian has taken a stand in this war, consistent with what they did in the early history of this country, we hope that you gentlemen here, as well as the people of this country, will assist us in reaching a higher state of civilization. We want you to understand that we have praying people among the unsophisticated elements, and they are able to know what they want. I think if we can get that cohesion and friendship of spirit that we can accomplish something, and we expect you to take us by the hand and assist us, and I think the Government of this country will find that the Indian is ready to accomplish and do everything that is possible to advance himself to a higher plane of citizenship consistent with the demands of the State. I thank you, Mr. President, for your kind hearing. (Applause).

The Chairman: I think the addresses we have listened to have been examples to all of us. The resolution as I have it drafted is:

That this Convention favours the application of Federal and Provincial aid for the construction and maintenance of connecting links or extensions of county roads through Indian reserves.

(Motion carried with applause.)

Another resolution before the committee was in reference to increasing the Provincial aid towards the salaries of township road superintendents:

That in the opinion of this Association, Provincial aid towards the salary of township road superintendents should be increased from 25 per cent. to at least 50 per cent.

In the past this Association has approved of the idea of township road superintendents, and that is one way in which the townships get some benefit from Provincial aid.

Mr. Todd: I believe the time limit for that percentage is three years; I think that should be extended. (Resolution carried).

Moved by J. C. Judd, and Seconded by A. A. McLodden, Frontenac:

1. That this convention heartily approves of the policy of Government expenditure in the construction of public highways and believes that it will be a great acquisition to the wealth and convenience of the agricultural interests of this Province. (Carried.)

2. That in maintaining highways constructed or improved by public expenditure, Statute Labour should be absolutely eliminated and the highways kept in repair under the supervision of a properly qualified Road Overseer.

Mr. Judd: I have been a member of this Association since 1894, and I have done a good deal of work in our county of Leeds and have given a good deal of attention to the question of good roads and the maintaining of a road must depend on a great deal more than Statute Labour. I have seen Statute Labour when it was absolutely humorous to see the way they did it. I have seen Statute Labour done so as to spoil the road, and I am absolutely opposed to Statute Labour. There are some men who will want to see Statute Labour continued, but I think the great majority of people will be delighted if it is abolished.

I believe the Dominion Government is spending $60,000,000 as soon as they can get rid of it, in improving the railways of this country, and many applications are being made throughout the Dominion of Canada for a share of this $60,000,000. The County of Hastings is looking for some and Lanark is looking for some of it, and I am interested in securing some for Leeds. We have a number of granite quarries. There are three of them working now in our county, and they are shipping immense quantities of stone. A ton of stone takes 10 cubic feet; and they have trucks now carrying four and five tons, and there is not a road in the land that can stand these trucks. I would like an expression of opinion from this gathering that wherever there is mineral land or quarries, the Government should build a light railway. I believe they are doing that now in England, and Saskatchewan is taking up the question. These light railways can run along the roadways without crossing farms, and can handle all this heavy freight, and save the roads, and would make a common link to connect up the different parts of the country. (Applause).

Mr. McQuillan: There is a division in our township as to what is the best principle, whether Statute Labour or not. I have always claimed that if you know the qualification of the inspector and overseers that you appoint, you will know the kind of Statute Labour that will be performed on the roads. If you get a man who will do the work at the proper time of the year and in the proper place, you will get results, but it is often found that a man who has been on a beat for three or four years and gets it into good shape is supplanted by some other man who has an axe to grind and who looks after his own section of the road and neglects the other section.

In the other system, the roads are fixed where it is most needed. The overseer goes across the township and looks after the main roads and has them fixed up. If you allow the people to have their way about this matter, do you think we would have one stone road in the Province of Ontario to-day? If the county councils did not build these stone roads, they would never be built by the townships. Such a broad system as we now have cannot be introduced and all the ground covered at one time. You would never have a road built at all if it was left to the vote of the people. When I first went to the county council in 1907, they bought a road machine in our township, and it was said that I was to get a trip to Kingston for that, but I did not go. That shows you the attitude of

the public, but when they get educated up to the benefits of good roads, they will warm up to them, and there will be more of them built. The old system of Statute Labour works all right if it is not abused. It was all right in our fathers' and grandfathers' time, but we have advanced since then. I think it would be good if we could have a law so that culverts would be fixed up by the township. If the inspector had full charge of the road, he could fix the water courses to suit himself, and if you do not have a well-drained road, it will never be a good road.

DELEGATE: In our township we have Statute Labour and a superintendent. About five years ago, our township adopted the principle of doing all Statute Labour and hauling crushed stone. If the last speaker will come to my township I will show him stone roads built by Statute Labour. We have laid down a rule that every team must draw one-third of a cord, and in that way we have found it unnecessary to do away with the Statute Labour.

THE CHAIRMAN: The idea of the last speaker is a good one, and that is to systematize the Statute Labour throughout the township.

MR. MERSER, Etobicoke: I am pleased that this question of commuting Statute Labour has come up because our council is thinking about commuting Statute Labour in the township. We had a full house at our last council meeting, and there is only one man who objected to having the Statute Labour commuted, and that was a man who did not stick for an extra day or two's work. If he saw a hole in the road, he went out and fixed it. I do not know how it will be worked if we have to fix the culverts and the approaches to the farms. Some of our men took the privilege of getting corrugated iron culverts, but the farmers did not put them in. Before the last election some of the council took good care to see that they were put in their proper places.

MEMBER: We commuted our Statute Labour and appointed an overseer on each beat. The north end of our township is very rough, and the people there do not pay very much taxes, and we cannot give them very much money. During the last few years, we have not done very much road work. We have commuted our Statute Labour at 75c. a day, and appointed overseers, and the overseer can get the money for one year. If he wants a stone crusher, and has not sufficient money this year, he can let his road money accumulate until he gets enough to buy the crusher. Whenever the road work is done, some member of the council has to inspect it before the money is paid.

There was one $12 job, and the man went to the clerk and said he had a note to pay, and that he had done his road work, and the clerk gave him the $12, and when I went to inspect the work I could not find that any had been done. This man had simply drawn the $12 for nothing. Since then, we have insisted on having every job inspected, and we have not had much trouble.

MEMBER: Is there any township where they only have one overseer for the whole township? I do not see how that would work out in the winter time. Supposing a township was 15 by 10 miles, who would take charge of the roads in the winter time? In our township we lay out a beat of so many miles for each man and we allow him 20c. an hour for a man, and 40c. for a team.

MR. WILLIAM CLARKE, Haldimand: We tried doing away with Statute Labour 15 years ago, and we are now back to Statute Labour. I am not saying it is right, but I think the whole trouble is that we have got to adjust our election laws. Sixteen years ago, the township council was elected, and they were energetic men, and they started out with the idea of commuting Statute Labour,

and they did business in a business-like way. The next year every one of them was kicked out, and that happens every time. Our election laws should be changed, and I think a man with sufficient energy to try and do something should be elected for more than one year. Every year brings in new faces to the county council, and they are green men. Before you can do anything with Statute Labour you have got to adjust the municipal laws so that a man will understand that he will be there long enough to carry out what he intends to do, without criticism. We have three or four road graders in the township, and the path-master is supposed to be on the road while the work is going on. You can work out a pretty fair system under the Statute Labour if you try. You cannot expect the council to build roads, if the people are not behind them.

Mr. Todd: Some 12 or 13 years ago, we abolished Statute Labour, and when I went into the council we were so discouraged with the system of commuting Statute Labour that we went back to Statute Labour. I believe last year 50 per cent. of the Statute Labour was never done. Last year we took a step in the dark. We were not pleased with the percentage the Department was paying for an overseer, and we abolished Statute Labour entirely. We did not commute it or anything else. We appointed the whole council as a road committee with the Reeve as Chairman. The Chairman happened to be a man in possession of a certain amount of leisure last year, and he was practically the overseer for the township. I believe we have taken a step in the right direction, and we intend to develop as we get encouragement from the Department. I think it is advisable to try and abolish Statute Labour altogether, and I think the Department should increase the percentage they give the overseer.

Capt. Loft: In travelling through England and France, I had the opportunity of going through France from the north to the south. The southern part of France is low country—a damp country and a sandy country; in fact, you can dig a well with your boots at the depth of about two feet—and it is remarkable to see the grand roads that they have in France. How they were first laid is a question, and how they are kept up is another question. I learned sufficient French to take an interest in finding out how they built their roads and how they maintained them, and the answer I got was this: "When we build a road we keep it in repair. We do not build a road and leave it until it goes to pieces." There is something logical in that. The roads are as level as this floor. Heavy automobiles of every description pass over them, and I travelled from the Bay of Biscay to Bordeaux over a piece of road that was chopped up more than any other road. I travelled all through France, and no matter where I went I was delighted with the roads. On the side of the road you will see piles of stone, crumbled down to a very fine size, and whether you went north or south there seemed to be the same system in vogue, and that is, that the roads are kept in repair. In every Department of France they say it is necessary to keep the roads in repair, and you will see the old men employed on these roadways, filling up the defects in the road. They are on the road the year round, and they receive a very small stipend for their work.

Mr. Claus, Louth: Let us stop for a moment and think of what the Department has done along this line of Statute Labour. We have a Deputy Minister who has studied the road question. The Government is leading the people of this Province with regard to the building of roads, and I believe in their wisdom they see the necessity of having on the township road a superintendent. We have abolished Statute Labour, and we have one road superintendent, and we have our time sheets and our pay sheets, and it is giving satisfaction.

DELEGATE: I do not think it is a right thing for the Government to force any legislation on any township that is not willing to adopt it. I think the township should be given the utmost liberty. I think it is only right that each township should be allowed to work out its own problem in its own way. We have already on the Statute Books too much legislation restricting the power of the people to choose for themselves, and for that reason, although I am opposed to Statute Labour, I am going to vote against that resolution. (Applause.)

MR. JUDD: Kindly remember that the resolution which is before you is simply asking for a qualified superintendent to look after the roads.

DELEGATE: I represent a township that abolished Statute Labour about 15 years ago, and the reason we did so was because there was about 2,000 day's work in our township and we did not know whether it was done or not. The pathmasters did not make their returns, and it was pretty hard to know whether the work was done or not. At the time we abolished the Statute Labour, we had only three or four miles of good roads in our township. At the present time we have 14 miles of stone road and 10 miles of gravel road, and we have not any debt, and our people would not go back to Statute Labour. I think the proper thing to do is to abolish Statute Labour. By doing so, you save a lot of trouble. (Applause.)

THE CHAIRMAN: I was very pleased to hear the remarks in reference to the French highways, and it shows that Ontario at least is going to get some results from the war through the soldiers when they return. I understand that behind the Canadian front in Flanders, there was a very complicated system of highways, and that must have impressed the soldiers as they went to and from the firing line. The traffic was regulated in every way, and different kinds of roads were constructed for different kinds of traffic. More progressive ideas will be distributed throughout this Province as to road building by the soldiers when they return. (Resolution carried.)

3. That in mining localities where heavy trucks are used for hauling and necessarily become destructive to the highway, light railways with either electric or steam power should be supplied and that these railways from mines' and quarries' output would be able to supply proper material for the construction and annual maintenance of such highways at the least possible cost, and that the Government be asked either to build the same or to supplement the municipal grants made for that purpose.

THE CHAIRMAN: With reference to traffic from mines or quarries along township roads at all seasons of the years, the roads are being utterly destroyed. Sometimes in a few days more damage is done than can be repaired in a year. That matter has been brought to my attention in Western Ontario where there is very heavy traffic to and from the milk factories and milk powder factories that have collecting stations in the territory surrounding the central factory from which they draw very heavy truck loads of milk. In one instance, a milk company succeeded in destroying several lines of road. They used one road until it was worn out, and then moved another mile to another road, and put three out of business. You can imagine the effect traffic of that kind has on the roads of a township. That matter is hardly included in the resolution but I mention it to show you that there are conditions existing that require special consideration.

MEMBER: That resolution has the tone of class legislation. I do not think any one class should be picked out and a light railway built for it, and I do not think any one section of the country should have a light railway built for it.

I do not want to see that resolution rushed through without consideration. The municipality that wants a light railway should pay for it.

THE CHAIRMAN: I have expressed no opinion in favour of this resolution. I have just stated conditions.

MR. CHAS. TALBOT: Mr. Chairman and Gentlemen, I think it is rather unfortunate that light railways have been mixed up with this resolution. There is no doubt that conditions develop in certain sections which are very difficult to control, and the case Mr. McKay has referred to happened in the County of Middlesex where they utilized to the fullest extent some three parallel roads across a certain section of the country, and they put them all out of business, but they did not do that with motor trucks. They hitched as many as three teams of horses to one waggon, and went at it in that way, and the narrow-tired waggons certainly did a beautiful job. In another instance where we built a very efficient road for the condition that existed at that time, the condensing factory at Ingersoll and the cheese factory in hauling over that road utterly destroyed it. I do not know how we are going to get legislation that will apply all over this Province. I think this matter should be taken up by the highway engineers. They are thoroughly familiar with the situation, and I am satisfied they are doing all they can to relieve the situation. I think it is our duty to emphasize these difficulties and bring them to their attention and leave the solution of the subject with them. The Department has skilled men throughout the length and breadth of this country and they are perfectly competent. I have worked with them for a number of years, and I think they are working to the best of their ability towards a solution of this subject. I do not think we should put a directing clause in that resolution.

MR. JUDD: Let us remember that this is not a legislative body. We are simply asking for an expression of opinion here so that it can be used before a legislative body.

MR. MCKAY: This has been considered by the Executive of the Good Roads Association, and it has been already brought to the attention of the Department of Highways by the Executive. I do not think that it is advisable that this resolution should do more than draw the attention of the Department to the conditions as they exist. Mr. McLean, the Deputy Minister, is here and as this is a very important question, I would ask him to make a few remarks in reference to it. (Applause.)

MR. W. A. MCLEAN, Deputy Minister of Highways: Mr. Chairman and Gentlemen, I do not think the subject is one regarding which I have reached a sufficient and satisfactory conclusion, to be able to give you much guidance this afternoon. The question is one to which I have given a good deal of study and I must frankly admit that in no country have I found a means of wholly overcoming the trouble as it exists here. We can usually study the laws of other countries and find some principle which can be applied, but I have so far discovered nothing that will give a complete solution of this problem.

There is a complaint, and one which is unfounded, that in the proposed Provincial highways we propose to place restrictions which will keep the farmer off the highway with traction engines and other machinery and with their stock. The highways of this country are primarily constructed for the farming interests. Need I say any more? If they are constructed for the farming interests of the country, we must permit the use of these highways by the farming interests for their implements, and any restriction which will impose obstructive interference

as to the use of any highway for the purpose of agriculture is wholly impracticable in Ontario. (Applause.)

I believe we can help the situation, but do not feel prepared to suggest very much this afternoon. However, I may say that on the highways of France they have in the spring and fall what they call "frost regulations;" that is, in the spring of the year, the municipal council have authority to send out a notice stating at a certain time and for a certain period, depending on the season, vehicles of a certain weight, and particularly a certain capacity, will be prohibited from using the highway. That principle I understand has been put into the Statutes of Michigan, but how it operates there I am unable to say. I hesitate to make any suggestion because I do not wish you to carry away with you the impression that any such restriction is contemplated here at the present time. I only say that this restriction is enforced in these other countries and in the United States. It would apply only, of course, to loads of excessive weight. In Ontario the heaviest load permitted on a highway is 12 tons, and the weight on the tire is restricted to 650 pounds per inch of width. I should like to ask Mr. Talbot if he could say whether, in the case he speaks of, he can give any estimate of the width of the tire and the weight on the tire?

MR. TALBOT: I think 2½-inch tire, and I think they were drawing 2 tons or 2½ tons of milk.

MR. SMITH: Two to two and a half tons on a two-inch tire, very early in the spring of the year, just when the frost was coming out.

MR. TALBOT: You can readily understand the position.

MR. MCLEAN: I would ask an expression of opinion from the Association as to whether it would be possible for us to say that, during a certain period in the spring, within the option of the municipal councils, the weight per inch of tire should be reduced, say half, in order to protect the road. There is a problem for you. Of course it always takes time, and public opinion has to be educated.

MR. SMITH: If there could be something done to regulate the width of tire according to the number of tons on the load, I believe it would get over the difficulty to a very great extent. In this particular case that Mr. Talbot mentions, it is in a dairy section of the country, and this company ruined three concession roads. I have always been in favour of legislation compelling a certain width of tire for a certain load, and I believe the Deputy Minister of Highways has struck the keynote when he suggests that the width of tire should be regulated more stringently during the wet season. I think if legislation could be brought into force compelling a certain width of tire, it would be no hardship on anybody and would help a great deal in saving the roads. This company could easily divide their load into three sections with a team on each, and that would save the roads considerably. If the roads are properly constructed and maintained, I do not think the motor truck will do them a great deal of harm if they are not driven at a high rate of speed, and if we would just look after the maintenance of our roads, I do not think the trucks would do any harm.

MR. MCKAY: I think this man who was drawing milk could be prosecuted under the Load of Vehicles Act.

MR. SMITH: If that is right we will look after them.

THE CHAIRMAN: After the discussion that we have had and the statement that has been made by Mr. McLean, I would direct your attention to the effect of this resolution. It is asking the Government to make grants for the purpose

of light railways, and I think possibly this resolution is outside of the subjects that we are here to discuss. I only make that a suggestion.

(Resolution put to the meeting and lost.)

MR. MCKAY: You have all heard the discussion as to the construction of entrances to private property from the highway, and the next resolution refers to that:

4. That the Highways Department be requested to arrange for the presentation of a stated case with a view to pronouncing an interpretation of the law and define the liability of municipal corporations for the construction of approaches to private property from the highway. (Carried.)

THE CHAIRMAN: I find that a number of highway engineers suggest the advisability of building these bridges, but there are different practices in different municipalities, and I think the carrying of this resolution will have the effect of settling the matter.

Very often in connection with the construction of highways, it is found necessary to enter on adjoining lands in order to provide protection work or to divert the course of a stream to prevent the washing out of the road. Conditions of that kind are to be found in every part of the Province. I find Section 324 of the Municipal Act reads as follows:

"324.—(1) At any time after the passing of a by-law for entering on or expropriating land the corporation, by leave of the Judge and upon payment into the Supreme Court of a sum sufficient, in the opinion of the Judge, to satisfy the compensation, may enter upon the land, and, if any resistance or forcible opposition is made to its so doing, the Judge may issue his warrant to the Sheriff of the County or District in which the land lies to put the corporation in possession, and to put down such resistance or opposition, which the Sheriff, taking with him sufficient assistance, shall accordingly do.

"(2) Leave of the Judge and payment into Court shall not be necessary where the land is being expropriated for or in connection with the opening, widening, altering or diverting a highway unless upon application by the owner a Judge of the Supreme Court otherwise directs."

The amendment proposed is that there should be added to that Section, that the works can be undertaken by the municipality immediately without having the compensation first determined.

The motion is as follows: That Section 324, sub-sec. (2) of the Municipal Act should be amended by adding at the end of the fourth line "or for the protection of." (Carried.)

THE CHAIRMAN: "Can a suburban commission build a cinder path on a suburban road?" If the gentleman who introduced this would explain what he is talking about, we might understand it. I have recently been associated with the formation of a suburban commission, and they think they can do anything. They were careful not to designate too great a length of road; I suppose by cinder path the gentleman means a path for sidewalk purposes.

DELEGATE: While I did not have anything to do with that question, I have a similar question in my pocket. In the County of Elgin, adjoining the City of St. Thomas, we have a great deal of trouble in that connection, and I would like to have some answer to that question, if possible. Has a municipality power to build a cement walk or cinder path by the frontage tax?

MR. MCKAY: The sidewalk question in some counties is rather a vexed one. The Highway Improvement Act relieves the county council from any liability

in connection with sidewalks, and also gives the county council complete jurisdiction over that highway, and the township council naturally are diffident about stepping in and interfering in any way, and sidewalks formerly constructed under the township system are allowed to get out of repair.

MR. FOY: In our county, there are some foot bridges of considerable length, you might call them sidewalks, and the matter has been brought before the county council at different times as to the maintenance of these. Some are in doubt as to what the Act means when it is said the county takes over the full 66 feet of the roadway. Is the foot bridge considered part of the bridge or not? That seems to be a question on which there is some doubt.

MR. MCLEAN: That question has not come before me previously. While the county council is relieved from the necessity of constructing sidewalks, I believe they have authority to do so if they wish. I would have to look into a case of that kind carefully. But I also believe that a suburban road commission would have the power of the county council in making expenditures for such purposes. Whether a foot bridge is a bridge or not in the eyes of the law I cannot positively answer, without going into the court decisions, but I would myself hold the view, until it was shown otherwise that it would stand in the same scale as a sidewalk. There are features of the case which would have to be studied. Mr. McKay is an authority on municipal law and perhaps he would be able to answer.

DELEGATE: A sidewalk built by the township council in an incorporated village; would it belong now to the county or the township?

MR. MCLEAN: The maintenance belongs to the township if the county wishes it to remain so.

DELEGATE: It would be necessary to first get permission from the county if the township desired to maintain it.

MR. MCLEAN: Yes, the responsibility for maintenance rests with the township, but the county can assume it if they wish to.

DELEGATE: If the county takes over a road, what portion do they take over, 60 feet or 66 feet?

MR. MCLEAN: They take over all the road between the fences.

DELEGATE: Would not the sidewalk come under the jurisdiction of the county?

MR. MCLEAN: As I say, the county is expressly relieved under the Act of the responsibility of the sidewalks, but if they wish to take that responsibility they have the power to do so.

MR. MCKAY: This sidewalk question presents a complicated situation. The Highway Improvement Act places the full width of the road under the jurisdiction of the county. Sec. 20 says the corporation of the county shall not, by reason of assuming the highway under this Act, be liable for building, maintaining or repairing the sidewalks, etc. If an accident happened on a sidewalk on an ordinary township road or side street, the municipality would be liable. The county is entirely relieved by this section. If the township gets permission to maintain the sidewalks in any particular part of the county they would simply be acting for the county council in the matter, and no doubt there would be no liability whatever in connection with it. This question is bound to come up. I have never been able to find a solution of this question. We have tried for several years to have the Municipal Law amended so that liability would be limited but the Legislature has not seen fit to make the amendment.

MR. TALBOT: It is a very annoying condition at the present time. There is absolutely a necessity of having a sidewalk where the road is under the juris-

diction of the county council, and the township council have no authority to interfere with that road. The result is a neglected condition as far as the sidewalk is concerned. I think the Legislature should establish who is liable, and if it is the intention to relieve the county council of the maintenance and construction of the sidewalk, they should go a little bit further and give the township council authority to enter upon that county road and exercise their duty in regard to the maintenance of sidewalks. We had a lawsuit in connection with a sidewalk between the City of London and the Township of Westminster. A young woman tripped on a plank sidewalk, fell and broke her arm. The city solicitor immediately got a notice for a suit for damages, and there were some four or five municipalities mixed up in it. It was finally settled by the Township of Westminster paying half the claim. I think the matter is well worthy of the consideration of the Department, and I have no doubt that they will attend to it, and I therefore move, "That the attention of the Department be directed to the law relating to sidewalks on county roads." (Motion seconded by Mr. Todd and carried.)

MR. PUGSLEY: The townships bordering on Yonge Street entered into an agreement to accept all liability provided they were allowed to lay a sidewalk on the toll road, and I think the same thing could be done in other places.

ADDRESS

W. A. McLean, Deputy Minister of Highways, Toronto

Mr. Chairman and Gentlemen:

I did not come prepared to make an address this afternoon, but I have been keenly interested in the proceedings and the points which have been discussed with so much enthusiasm. There was a time when it was hard to stir up interest in advanced highway construction, and the interest that was stirred up was of a kind one did not wish. (Laughter.) That time, I am happy to say, is wholly passed, and it is very gratifying to me to see and to feel the enthusiasm that is here on behalf of good roads—not simply improved roads or patched roads, but good roads. (Applause.) I find that the sentiment here to-day, and with everyone I meet, is that we should *build roads*. In this construction the Department is most happy to be able to co-operate with you as far as we are able, but the time has apparently almost come when we will have to get our back to the wall and say, "Don't all speak at once." (Applause.)

I do not want to re-open the discussion on Statute Labour. (Laughter.) We have had it for the past 25 years, and it is still with us. I will only throw out a couple of suggestions. One is that the defenders of the system come from townships where they are able to use it for the purpose of teaming material—gravel and stone. You will find that nearly always that is where the defenders of the Statute Labour System come from. Other townships say they have appointed overseers, and it is not a success. If it is not a success, you will find in a great majority of cases it is because they did not select the right man for the superintendent. (Applause.) That is the key of the situation. If you do not put a capable man in as superintendent, the primary requisite of the system is lost sight of. It is not there and it cannot possibly be a success without it.

One speaker spoke of the beautiful highways of France. I have no brief at all for the engineers: but the reason France has probably the finest highway

system in the world to-day is because their scheme of organization was under engineering supervision. They have a school for highway engineers and every highway engineer when he passes out of that school must spend an apprenticeship on the highways, and gradually he comes up to the point where his position is equivalent to that of a County Road Superintendent or a County Engineer. That is why the roads of France are the finest highways that are to be found any place in the world.

While France has the best construction of any country in the world, the excellent state of the roads in England is due to the fact that their care and upkeep and their maintenance is superior to that of any other country in the world. Here in Ontario, we have the Provincial highways laid out for us. They are on the ground, and as a rule we are not creating any new highways. I want to contradict a slight impression, that we are expecting to construct a concrete highway from one end of Ontario to the other. Concrete is an excellent material, and I have no fault whatever with it where it is required, but the first thing we will do in the Provincial highways is to install a system of maintenance and repair for what we have. Then our construction will go on from point to point as it is required and as the country can afford to pay for it. But don't get the impression that we are undertaking something that Ontario cannot afford.

If I were to propose here this afternoon that in the townships of Ontario in the course of the next ten years, in addition to their Statute Labour, they should spend $20,000,000 on their township roads, what would you say? In the next ten years I propose to you that the townships spend $20,000,000 in actual cash on your township roads. That looks like a pretty big undertaking, but you are going to do it. If you just keep on at the pace you are going, you will do it, because you are spending $2,000,000 annually in cash on your township roads.

When people talk about the big expenditure on Provincial highways and county highways, don't let them alarm you. It is only an annual undertaking with all of us, and we will not spend more than we can afford.

I read that in the beginning the world was created by God who made day and night; He made land and sea; He made the heavens and the earth; and then He breathed into man the breath of life, and I believe that with that breath He put into each of us something of the power to know and to appreciate what it means to build and create. It is a God-given instinct, and we should be happy here that we have the opportunity to create good highways in this Ontario of ours, and to know and appreciate ourselves, the joy that will come to us in transforming this country.

Good roads are built with public opinion as much as they are with stone and concrete and asphalt or any other material. (Applause.) I know that the enthusiasm you have here will spread itself throughout Ontario. I cannot believe that the expression of opinion that came from the U.F.O. is their final decision on this question. I have every respect for them, and I do not believe that decision is based upon a clear understanding of what is proposed in Ontario, because if good roads mean anything to any class of people, they mean a great deal to the farmers. (Applause.) I do believe confidently that as soon as they understand what is proposed they will be the heartiest supporters of this work. (Applause.)

MR. TODD: I move a vote of thanks to Mr. McLean for the great interest he has taken in highway improvement in this Province, and for the address he has given us this afternoon.

(Motion seconded by Mr. Smith and carried with applause.)

MEMBER: It has been stated that the United Farmers of Ontario are opposed to highways; are the farmers here opposed to them?

(Cries of "No, No.")

MEMBER: The U.F.O. do not represent the rank and file of this country when they make that statement.

(Cries of "No, No.")

MR. MCKAY: We have already expressed confidence in the highway policy of the Province, and that is a complete answer to the question. There are various questions that have to be considered in connection with the reconstruction problem, and that problem is closely allied with the problem of road construction. The Provincial Government has given the matter considerable attention and considerable attention is being devoted to the employment of the returned soldier. The Legislature is about to approve of the appointment of a Deputy Minister of Labour, and we have with us to-day Dr. Riddell who has charge of the Labour Department and who will be that Deputy Minister. I have now much pleasure in calling upon him to address you.

ADDRESS

Dr. W. A. Riddell, Director of Labour Bureau, Toronto

Mr. Chairman and Gentlemen:

I am sure it is a pleasure to meet with you men here this afternoon. I have a very high opinion of Ontario highways. I remember coming into Ontario after an absence of some six years, from Ohio. I had been making a rural survey in the State of Ohio, and had gone into considerable detail into the problem of communication in rural communities. The roads there were abominable. I remember talking to a man of three score years, and I said to him, as we were standing on the side of the road where the dust was four or five inches deep, "What kind of a road did you have when you were a boy in this township?" He said, "A whole lot better than we have now." In making over roads in Ontario, you have kept them new, and you are to be congratulated. Your leadership has been of great value; the splendid trunk roads in Huron County that I have driven over time and time again convince me that you men had sufficient foresight to make the most of these roads.

I am interested in good roads for this Province, and anything that helps farming. I am interested in it from the standpoint of labour. In Canada, during the coming year, there will be a labour turnover of more than half a million above normal. That is, we will have to re-absorb into the industry of this country half a million men more than under normal conditions, and half of these will be in Ontario. During the first years of the war large numbers of men who went overseas were men who had been on railroad construction. I remember just before the outbreak of war, being in Edmonton and seeing 2,000 men along the streets looking for work. They had just come in from the Grand Trunk Pacific. These men were hardened to road work. It was among that

group of men in the west that recruiting was carried on most successfully. Tens of thousands of men who went overseas were men who had experience in road construction. The closing down of that railway construction enabled a number of engineers to enlist, and so you will find among the men who come back from overseas, men who are skilled in road construction, and these men should be available for that kind of work.

The Government have organized employment offices throughout the country, so that all you need to do, if you want labour for road construction, is to get in touch with the Agricultural Representative in your county, who acts as an agent of our employment system, or you can go to any of our employment offices that are open from Ottawa to Windsor.

We are prepared to secure for you adequate labour, and men who know how to build roads. We are opening up during the present week a branch of the employment system that will cater largely to the engineering class, and will largely take care of the returned men. We expect to have lists of these men in our offices in a very short time, who are competent and capable engineers. We would like you to use our employment agencies. They are at your service. I want to be able to place every man who comes back. He gave up his job to go and fight, and we owe it to him to give him a job when he comes back. I know that we will have your hearty co-operation, and I can assure you that you will have ours. (Applause.)

Moved by Alton Brickman, seconded by Archie Blackie, "That in the opinion of this Association, Sec. 495, Chap. 192, R.S.O. 1914, which prohibits the placing of road metal and all other road material on the public highways during the winter months is detrimental to the general improvement of highways, and serves no useful purpose; consequently should be repealed."

MEMBER: I do not think that question should be passed haphazard. I do not think it is good policy to put gravel on the highways when there is snow on the ground.

MEMBER: We get teaming done much cheaper at this season of the year, and there has been no snow, and I think that should be taken into consideration. In the summertime, it is impossible for us to get teams to draw even a load of stone; but at this season of the year, the farmers are quite willing to work with their teams.

MEMBER: In the part of the country I come from, we have done about three miles of road this winter, and we have left it in fairly good shape, and I would not like to prohibit people from doing the work in the wintertime. Otherwise we would not be able to get the work done.

MR. PUGSLEY: Surely you can leave that to the municipality to decide when the gravel should be put on.

(Motion put to the meeting and carried.)

THE CHAIRMAN: The next resolution refers to the freight rates on road making material:

That since the building of roads is recognized as an economic after-war necessity, and since transportation charges on stone and gravel and other road building material embrace a considerable portion of the total cost of road building, and since freight rates have been advanced on these approximately 65 per cent. during the past two years,

Be it therefore resolved that this Association petition the Federal Government requesting their co-operation in seeing that freight rates on road building material be reduced to a pre-war basis. (Carried.)

THE CHAIRMAN: There is a similar resolution from another gentleman and I will simply pin the two together.

Moved by C. R. Wheelock, seconded by J. A. Sanderson, Whereas freight rates on crushed stone and other road building materials have been increased very materially during the past three years;

And whereas such high freight rates are detrimental to the construction of highways on account of the serious increase in cost;

And whereas it is desirable to construct highways on a large scale during the coming year and thereafter in order to provide work and employ labour in a productive manner;

Now therefore be it resolved that this Ontario Good Roads Association in convention assembled do hereby protest against existing freight rates on road building materials and call upon all railway companies, Provincial and Federal Governments and the Dominion Railway Commission to take such steps as will most speedily bring about relief in the form of reduced freight rates.

And be it further resolved that copies of this resolution be forwarded to the Right Honourable Sir R. L. Borden, Prime Minister of Canada, Honourable Sir W. H. Hearst, Prime Minister of Ontario, Sir Henry L. Drayton, Chairman, Board of Railway Commissioners for Canada, and the President of the Canadian Pacific Railway, President of the Grand Trunk Railway System, and President of Canadian National Railways. (Carried.)

Another resolution which deals with a very serious difficulty, asks that the Minister of Highways be requested to safeguard the needs of those portions of the Province that require road making material by purchasing quarries and deposits of gravel. The County of Elgin has already bought a large central gravel pit, but there are districts where it will be placed at such a price that the municipalities will not be able to buy it.

MEMBER: There is a tendency to hold up municipalities where materials are secured, and I think the Government can buy them better than we can.

(Motion put to the meeting and carried.)

Meeting adjourned.

CLOSING SESSION

March 7th, 1919

J. J. Parsons, the First Vice-President, occupied the chair.

The Chairman: I have much pleasure in calling on Major Kennedy to address you.

ADDRESS

Major Kennedy

I am here purely to fill in for the Vice-President of the Eastern Association. The Eastern Ontario Good Roads Association has taken up the question of Provincial county highways very extensively, and in their opinion the county should not build these roads; the Province should be asked to build them. As you know there are county highways and also provincial county highways. The Province builds the Provincial highways, and in the opinion of the Eastern Association, the Province should be asked to build the Provincial county highways. It is for the purpose of getting the expense of the overhead charges on to the Provincial Highway Department at Toronto. Speaking briefly, that is the resolution they want passed, if they can get it. The resolution is as follows:

Resolved that in the opinion of this Association the Highway Improvement Act be amended to read, that the Province may on request of the county, construct Provincial county highways.

Mr. Charles Talbot: I think there should be a limit to what we ask the Provincial Government to do. We have the Government at our back at every turn, and surely we are men enough to assume some of the responsibility and some of the technicalities, and apply some of our brains to the construction of our highways. Surely it is unnecessary to concentrate everything in the brains of men here in Toronto, and shut the work out from every other man in the Province. For my part, I think it is perfectly consistent that the county should control the market roads that lead to the trunk roads, and let the Province take over the trunk roads. Let the Province not only take over one trunk road, but let them survey the northern part of this Province and build another trunk road there. I think we should assume some of the technical work, and for my part, I do not think it is necessary that the Province should pauperize the municipalities by doing everything for them.

Mr. T. J. Mahony, Hamilton: I agree with the remarks made by the last speaker. I do not think it would be advisable to ask the Government to assume all the construction work. In beginning this Provincial Highway System, they are doing it without sufficient construction organization, and it will take a few years' time before they can carry on that work sufficiently economically in the interest of the Province, and to ask them to further extend their organization would be a poor business. I think, without any reflection on the Department, there is no question in my mind that the work of the Provincial county roads could be done more cheaply than it could be done by the Province. (Motion put to the meeting and lost.)

Moved by Mr. C. H. Claus, Lincoln County, seconded by John Forgie, Ontario County:

That whereas the Provincial Government has adopted a policy whereby certain roads are or will be designated and known as Provincial Highways, to be constructed and maintained principally by the Provincial and Federal Governments,

And whereas this Association has placed itself on record as being in full accord with said policy.

Therefore be it resolved that this Association respectfully ask the Councils of all rural municipalities to pass a resolution approving of said policy and forward the same to the Minister of Public Highways.

Mr. Claus: As mover of that resolution, my object is to offer some commendation to the Minister and Deputy Minister of Public Highways for the work they have done. We all know of the action taken by the U.F.O., and that has been sown broadcast over the land, and I am sure that is not a sentiment of this Association. I believe our public men should be congratulated on the work they have been doing. The Minister of Public Highways and the Deputy Minister are doing all they can and are willing to do all they can to assist the rural municipalities in building these trunk lines, and we should endorse their action.

Mr. W. B. Sanders: As a director representing the County of Huron in the U.F.O., I might just state that there have been two statements made as to the U.F.O. I think the true meaning of the position of the U.F.O. was that it was not a commercial road, and that it was more of a joy road than a commercial road. That was the reason the U.F.O. took action in Toronto. While considerable discussion has taken place with regard to this very road, I think the principal object has been lost sight of. I am just as much in favour of good roads as any man in Canada, and the question is: Is it a joy road or a commercial road in the true sense?

Major Kennedy: As a farmer for a great many years, I have always thought that there was nothing that would do as much good for the farmer as good roads. I blame bad roads for the depression in the rural districts. After a hard day's work, the farmer could not leave his home and go to his county town because the road was in such bad condition. The farmers are now using motor cars, and in my opinion, the motor car is just as essential to the farmer as a binder. Where there are no good roads, there is savagery and barbarism. When the Romans built the roads almost all over Europe, one part where no roads were built was in Prussia. Therefore, during the centuries the Prussians have been barbarians or "Huns." Good roads mean that the farmers will be able to leave their farms at night and go into the adjoining town, and it will improve the farmers in that way, and they will be more satisfied with life. In my opinion, that resolution from the U.F.O. was a mistake. They did not understand what a commercial highway meant, and they did not understand that a highway running into a county town would be a link to the Provincial highway. That resolution was very misleading, and I am sure that few farmers belonging to the U.F.O. will sanction it when they understand what it means.

Mr. Forgie: As seconder of that resolution, I would like to say that the real object of the resolution is to the effect that this Association has already approved of the policy of the Provincial Government. We want to make it clear that the resolution that was unfortunately passed by the U.F.O. was apparently passed under a misunderstanding of the policy of the Government. Three-quarters of the U. F. Convention was composed of men who have not made a study of municipal affairs, even local affairs, much less the highway situation throughout the Province as a whole. The resolution was passed yesterday that other roads

should be built throughout the Province by Federal Aid. Anybody who gives the matter any thought will surely agree with me that the policy of the Government in building the trunk lines first is right. If other roads were built, they would not lead to anywhere. If the rural councils will pass resolutions endorsing that policy, it will strengthen the hands of the Department, and it would make the Department feel that they have the people of this Province behind them.

MR. S. L. SQUIRE: I want to go on record as being opposed to the Government spending money in building speedways in this province, but I do think that there have always been main roads in every part of the world. There always will be main roads; there are main roads in connection with our railway system, our canals and highways. The whole thing is a misnomer. I do not believe it has been the intention of the Government, and it has never been the intention of this Association, to advocate the spending of large sums of money for the purpose of speedways. We believe that public money should be spent where the greatest good will come to the greatest number. I believe the farmers will agree to that principle absolutely. There has been unfortunately the suggestion that these roads were to be speedways. I do not suppose it will be possible to keep the "speed artists" off. The Toronto-Hamilton Highway Commission make it impossible for the "speed artist" to go very fast without paying a fine, and I want to say about the Toronto-Hamilton Highway that it affords men about as little chance to speed on it as any road I know of in the Province. I think you can go on almost any country township line and drive faster than on the Toronto-Hamilton Highway. They have so much traffic on that road that it is almost impossible to go fast, and I do not see how they can possibly fine a man. The traffic on that road is so great that the "speed artist" has a poorer chance there than in any other part of the Province. If it was my desire to speed up my motor, I would take a side line rather than the Toronto-Hamilton Highway.

It is not the object of the Government to build speedways, but they intend to build roads to take care of the traffic, present and future. That is reasonable, just and wise, and I believe this Association has advocated that idea for some years. I do not think we will change our minds. I believe we are consistent to-day when we say that we are not in favour of the Government spending money to build speedways, but we are in favour of the Government building roads that will be able to take care of the traffic that passes over them.

MEMBER: In order to defend my statement with regard to the attitude of the U.F.O., I might say the matter was discussed at great length, and they came to the conclusion that the Ontario farmer was devoting his whole attention to the raising of stock which could not be marketed on these roads. I am not giving you my opinion. There were about 2,000 farmers present from the Province of Ontario. A great many farmers in my section, particularly, think that if the highway is passing their door they would put their cattle on a railway car and send them to Toronto which is their market. I think the U.F.O. mean something in Ontario. They are going to bring about a revolution in Ontario, and I think the time will come when they will take a high stand in the affairs of the Province.

MR. J. W. ENGLISH: I would like to go on record as being in favour of trunk roads. I think that is something we are in need of in the Province of Ontario. I think we need a little speed in the Province of Ontario as well, and I think we will be able to make a little speed over the highways that the Province will build. I think if we travel over them at the rate of 25 miles an hour, we will be just as safe as we are in passing over some of the roads we have at 15 miles an hour, and we will not have so much wear and tear as we have at the present time.

I am a member of the Good Roads Commission of Brantford, and I may be called a city man, but I have the unique distinction of having married a farmer's daughter, and I am over the road of the Province quite a good deal. I am not a speeder, but I find that where you have a good road you can pass over it more quickly and with greater comfort.

MEMBER: I want roads so that the boys can get out when they are through with their work. We should have something to encourage the boys to go out and take a drive and come back and stay on the farm. If you want to keep the boys on the farm, you must make the farming business attractive for them, and nothing will do it better than good roads. A few years ago we could get to Toronto for $1.60, and now we have to pay $2.40, and I say, give us good roads so that we can go out when we want to and enjoy ourselves and make life in the country pleasant and attractive.

MR. CHAS. TALBOT: We are all in favour of good roads for the time being, and you may ask the township councils to pass this resolution. In the County of Middlesex, we have a Provincial highway running through the southern limit of the county, and I do not think at the present time there is a representative in the County of Middlesex who is opposing that Provincial road, but you take the township council 25 or 30 miles away from the road, and ask them to pass such a resolution, and you will find that they are not very anxious to pass a resolution of that kind to spend an immense amount of money at the southerly limit of the County of Middlesex. I will venture to say that in the County of Middlesex, you might possibly get one, but I do not think you would get one township council to pass that resolution, simply because there is always in any township, on a new movement such as this, a considerable element of opposition. I think we should be consistent and not ask the municipal representatives to do things that are not consistent. I think the best thing to do is to not pass the resolution.

MR. CLAUS: I think there is more backbone to the representatives of municipalities than our friend Mr. Talbot thinks. I think every man should have sufficient backbone to express himself in favour of or against a question.

THE CHAIRMAN: There is something to be said against this resolution, but I suppose as presiding officer for the time being, I have no right to enter into the discussion. Perhaps you will grant me the opportunity to say a few words.

I am a farmer and I have been a member of this Association since 1907. When I first heard Mr. A. W. Campbell speak upon good roads, I thought it was a beginning of a new era for the farmers in Ontario, and I entered heartily into the work because I saw that good roads were coming. It seems to me, as Mr. Squire said, this talk of a speedway is a misnomer. There are two different names applied to the same thing. What is the use of calling a road a joy road and trying to make out there is a difference between a joy road and a commercial road? I cannot see why any road would not be a commercial road. No road is going to be set aside simply as a joy road or a speedway. The Government is not going to build that sort of a road. The best roads we can get are none too good for the people of this Province, as the Hon. Dr. Cody pointed out to us last evening. What a beautiful picture he drew of the future for rural Ontario, and how he showed to us the conditions that may exist in the near future and that are so much needed by the people who live in the rural part of this Province. In my own municipality we have lost 2,000 people in the last 20 years, and that is an example of what is happening in rural Ontario. The populations are

going to the larger centres and there is only one thing to do, and that is to make life in the country more attractive, and have more conveniences around the home, and every road that is built will be a means towards that end.

I think myself that this resolution is inopportune. The Government is going to do these things, and I do not think we ought to pass this resolution, and then the councils will not have to pass one way or another upon this matter.

As Mr. Talbot pointed out, if we pass this resolution, we may not get a resolution that we would like from some of the county councils.

MR. SANDERS: I move that the resolution be referred to the Resolutions Committee.

MR. PUGSLEY: There is nothing in the resolution, and if the township municipality does not want to pass it, they need not do so. I have heard a great deal about the United Farmers' Association, and a lot of these things are creeping up in the back corners, and perhaps some of these men have not taken the matter into consideration. There are a great many men throughout the country who have not properly considered the highway situation. I think there should be no objection to the resolution being passed by this Association. I do not take much stock in the theory that because a man takes his family out for a drive that he is joy riding, and that nonsense should not be thrown out here that it is a joy road, because I know a good many farmers in our neighbourhood who are the fastest drivers we have. They helped to pay for the road, and if they break the law they take the consequences. I have worked as hard as any person in building roads but not with the thought of joy riding. They were built for commercial purposes, and sometimes we drive to Toronto when we have business, and you cannot keep a man on the farm if he does not want to stay there, and he has as much right to drive to town as any other man. I would second the motion that the resolution be referred to the Resolutions Committee. (Resolution referred to the Resolutions Committee.)

MR. MCKAY: This matter was referred to the Wardens yesterday, and the present policy of the Provincial Government in reference to highways was approved unanimously. What has happened since yesterday to make it necessary that we should get the opinion of county councils to back up the opinion so unanimously expressed is something I do not understand. I do not think you can get a report until the next annual meeting, and if that is the intention of the mover of the resolution then it will be in order.

THE CHAIRMAN: I made the suggestion that if the mover and seconder of the resolution withdraw the motion it would settle the whole thing.

(By consent of the mover and seconder of the resolution, the resolution is withdrawn.)

Moved by Mr. J. F. C. Biggs,

That in the opinion of this Association all fines received from parties for speeding on Provincial roads should be applied on the maintenance of such roads.

MR. BIGGS: We all know that speeding is one of the greatest detriments to a road, and when the fines come from it, as they do on the Toronto-Hamilton Highway, they should be used towards the maintenance of the road. (Motion carried.)

ADDRESS

"FEDERAL AID"

A. W. Campbell, C.E., Dominion Highway Commissioner, Ottawa

Mr. Chairman and Gentlemen:

I am very glad to have this opportunity of coming here this morning and meeting with you for the purpose of discussing the question which you have seen fit to place on the programme for my consideration. It is a source of very great gratification to me to be able to return here to celebrate with you the 25th anniversary of the Good Roads Association of Ontario. I was here at the first meeting of this organization. I have seen a good deal in connection with road making during the past 25 years, and it is a delight to me to know that during that quarter of a century the interest has been kept up to such an extent as it is in the Province of Ontario.

A great many changes have taken place in our system of road making and the methods of road building and in our views as to the requirements and interest of roads in this Province during that time. It is a delightful thing indeed to find so many representative men drawn from all parts of the Province of Ontario who find this subject of sufficient interest to come here and spend at least three or four days during this week in the healthy, intelligent discussion which you have been carrying on.

I have watched very closely the reports of your meetings and the nature of the resolutions you have passed, and I have been delighted in finding that you to-day appear to be so familiar with the question of road making and the requirements of the different sections, and the requirements of the Province as a whole. This is not a question upon which there is any particular sentiment. It is a business question which must be met and threshed out in a business-like way, because it means that it affects every man, woman and child in the country. It involves an outlay of millions of dollars of money, and consequently it is a question of considerable importance, and a question of such importance that I think you are justified in spending the time you are spending in connection with this matter.

When this agitation was first started, it was my privilege to have been appointed to meet with the Municipal Councils all over the Province, and to go over their roads and to view the conditions and study some of the methods which they were employing in making and maintaining roads, and to make suggestions to those councils as to how I thought they might improve their practice, their system and their methods in order to bring about some better results with the labour and the money they were spending upon the roads.

In those days roads were built entirely by the farmers, and the cities and towns contributed nothing to these in any way, shape or form, yet they used the roads as they do now. It was necessary in the interest of trade and commerce and the business of the country that the people of the towns and cities should use the roads just the same as the people in the rural districts, and I never could understand from that day to this, why, in the early history of the country, rural roads should have been placed entirely under the jurisdiction of the municipalities, and why the people of the rural districts themselves should be obliged to make and maintain these roads at their own expense, any more than the people in the cities and towns should have been obliged to build roads out into the country

to distribute their goods and wares and bring the produce of the farms back into the towns. It is a question which upon we can all well afford to unite. There should be joint responsibility; there should be joint jurisdiction; there should be joint assistance; and there should be co-operation one with the other from the beginning to the end of the Dominion of Canada in this respect. If we are ever to expect to improve our roads and bring them to the condition which we all hope they will be brought, it will be by that united co-operative method that will place the taxes fairly and justly upon any person who receives in any way, shape or form any of the benefits which result from these roads.

Forty-seven per cent. of the people of Canada live in the towns and cities, and so far as rural roads are concerned, they are almost entirely free from taxation with reference to these roads. Now, Sir, that is not right or fair or reasonable, and until some method is adopted which will distribute that taxation and that responsibility equitably over all—until then—we are imposing upon the people of the rural districts a responsibility which they are unjustly being asked to perform.

Now, Sir, to speak of these early methods is to me a matter of very great satisfaction. When I look back over the period of a quarter of a century and view the suggestions which I then made and suggestions which I still cling to, I am satisfied that progress is being made. I remember going into one township not far from the town of Owen Sound. A by-law had been submitted to the people to raise, I think it was, $40,000 to improve the roads of the township. The Municipal Council had asked me to come there to address four meetings. I went, and at the station was met by the Reeve and driven to the first meeting, a place some short distance out, but I found the hall crowded and some people outside. I said to the Reeve, "The interest in road making must be very keen here. It appears to me you won't have any difficulty in getting your by-law passed." But when I got there I found it was rather an indignation meeting, and after getting out of the carriage I stood by. Nobody seemed to want to recognize me; nobody seemed to want to own me. People went into the hall. I had arrived, and the time for the fight had commenced. I walked in with the rest of them, and after a little hesitation, someone suggested that a chairman should be appointed, and suggested the Reeve should take the chair. The Reeve said, "I have nothing to do with this; a petition came in asking that this public meeting should be held to discuss this by-law, and we invited Mr. Campbell to come here and address the meeting, and he is here." "Well," they said, "he is here, but I think you ought to elect a chairman." And they said, "No, the Council called this meeting and the Reeve should take the chair." The Reeve said No, it was not his meeting, and after some parleying, one gentleman got up and said, "I think out of fairness to this man, we should call the meeting to order and somebody should take the chair, and if nobody else will do it, I will get up and take it myself." They all applauded him, and he went forward. He was the brave man of the situation.

In a very few words he introduced me, and I got on the platform. One old gentleman in the rear stood up and took a glimpse at me, and he said, "Young man, I built roads in this country before you were born, and I am damned if I am going to sit here and have you tell me how to build them," and with that he shot out of the meeting. Another man got up and said, "He is right. What do you know about making roads?" He said, "Young fellow, your hair will be gray before you will find good roads such as you suggest building in this country."

Well, Sir, possibly that prediction is coming true. My hair is getting gray in the advocacy of this cause, and I am as strong an advocate of good roads to-day as I was at that time and ten times stronger. (Applause.)

I am as much interested in improving the rural road as I am in building the finest class of cement or concrete road that can be laid down. I am as much concerned about the road that leads to the last farmer in the district as I am in the improvement of the main road. (Applause.) I believe these improvements will come gradually, and we must not lose sight of the fact that we can ill afford to direct the whole of our energy to the improvement of what may be termed Trans-Continental Roads, or through roads or Provincial roads or speedways or anything of that kind. Let us observe the principles which must be observed in connection with this as with any other work.

These are the regulations which I would like to have followed in connection with any expenditure which I may have control of regarding the building of roads from the Atlantic to the Pacific, and they are simply this: *Plan wisely, construct skilfully, maintain diligently.* These are the three principles I would lay down, and any regulations that will be laid down, so far as I am concerned, or any suggestions which may be made, whether Provincial or Federal, is that we must move along these three lines of spending the money, carefully, cautiously, honestly and systematically, and to build in the places where the roads are most required, commencing at a central point—the market town and market stations—and building out, not commencing at any one point or along any one line, but the point which is used most, by the people of that little community or that large community, and then work outwards.

Before we even commence this, let us lay down some definite plan, more or less comprehensive, in order that any expenditure which we make will be along the lines of a mile, we will say, this year, from this station, bringing the good road that much closer to our farms, and extending that each year; and year by year extending it out from the different places until these two works connect. Then you have a through road between these two points and if the other fellows are building in the same way at different points throughout this Province—and I prefer to confine myself now to the Province only—it will in time give you a connected work, the basis of a well defined plan. But while you are concentrating your extra expenditure on this, do not make your efforts such that one day of labour or one dollar of expenditure will be diverted from the average road, which is the road after all of the individual farmer of the country.

In these few roads that may be built by Provincial and Federal aid, the last thing that I would mention is the amount of appropriation of cash that should go to these. My first thought is the thought that I have always had, that the people should be educated—and I do not like to use that word—the people should be attracted to the question of road improvement, and should be made interested in the question of road improvement. Every man, whether citizen of town or of the country, should be interested in the roads, and the man who will go out and fix a hole in a broken culvert and save possibly a horse's life is the man who is thoughtful about the condition of the road, and the man who will spend a couple of hours in filling up a hole in the road is a philanthropist and a man who ought to be encouraged, and he is the real road maker of this country.

Let us stick to the development of road improvement in this country. I do not care to see a few miles of high-class roads built in one section and all the rest of the community go without, but I believe road improvement is to be brought

about by that slower process of actual development—making the foundation of the road first. Without the foundation of the road, don't appeal to me for any assistance in the way of cash towards putting on a crust on a foundation that has not been properly drained and prepared to receive it. (Applause.) I would rather contribute our percentage to the cost of draining, making the grade of uniform width and scraping and rounding it up into shape and putting in cement culverts and bridges and finishing the foundation in a proper way, so far as I am concerned, than contribute towards the surfacing. I would rather contribute towards the foundation even if the surfacing did not follow for some years to come.

Build the foundation; get the road in shape and of a uniform width and put your ditches in proper shape, so that they will carry off the water, and see that drains are made to carry the water away, and see that the foundation is properly settled before any surfacing is attempted. Then when you are ready to put on the surface, put it on systematically, and put on something that will stand for some time to come. Let the process be slow, if it will. This is a huge problem which cannot be accomplished in a short number of years, and as I view it from the past term of years I think the development in this Province in road making is something marvellous; you have accomplished wonders. And I believe that a great portion of this work has been brought about by the organization of this Association and the efforts you have put forth, and I hope and trust you will continue.

It matters not to what extent the Province contributes or the Federal Government contributes, if you will still continue your good work and guide and direct the work of road making in this country, then results will be seen for years to come.

The building of roads is not something that can be accomplished in a few years' time; no, we will be building roads as older countries have, for centuries, and they still find it necessary to build, and they have been maintaining roads for centuries, and they still continue to maintain, but when they do undertake a work of construction, then they undertake it upon a scientific plan, so that every dollar that is expended in that work bears results. If you build a mile or two of good road in your county, it lessens the number of miles which you have to build, and brings the work closer to your home, and leaves you in a position to see the results, and you reap the benefit of every dollar that is expended on the roads.

The whole jurisdiction rests with the Municipal Council and the Township Council, but in the interest of efficiency and economy, it was found advisable to broaden the jurisdiction with respect to certain roads, and these were handed over to the County Council. The County Council assumed that responsibility and they have gone on improving a limited mileage of road, and the work which they have done stands to their credit to-day in every county I have had the privilege of visiting, and they are extending that work. In a very few years, the work which they have taken over will be finished, and other roads will come into their care and keeping.

On account of changed conditions, it was found that the counties had not a broad enough jurisdiction to satisfy the requirements of the traffic, and it was found necessary—and I think those of you who have looked at the question seriously will consider that it was advisable—that the jurisdiction of the counties should be broadened, and the Province should take control of at least a limited number of miles of these main arteries in the interest of economy and efficiency.

Does it stop here? I do not believe it does. Owing to the traffic of to-day, even Provincial lines will be lost sight of, and after all, when you view the proposition as a whole, the sphere of the Dominion is not by any means as large as the sphere of the Province was probably ten or fifteen years ago. To have a proper system in this country, we must all work unitedly. The principle of road making must be observed, and you must put on a surface that will suit the requirements of the traffic, and you must put it on so that every dollar that is spent will be a permanent work and will last for some time to come. If that is followed, then I say that the system in the Dominion of Canada is no greater than the system in any one locality or township.

If Federal assistance should be given to the making of these roads, then I say that in any event there is no suggestion that any jurisdiction or any authority or any control of these roads or of this expenditure should pass out of the hands of the Province. The suggestion is that it should be divided among the Provinces on the basis of population. Then it is for the Provinces to do their own planning and to carry out their own work, and as long as they are planning this work upon a proper basis and consistent with the Provincial plan of carrying on the work, that is all that is required, and there will be no dictation from us. (Applause.) We want no control. We want some supervision in order to see—not that Ontario would not spend every dollar wisely and well—because that would not be otherwise, but I am speaking now for nine Provinces, and it is necessary to see that the plans are fairly and sanely and wisely laid down and followed, so that the money would go towards the development of roads and the improvement of roads consistent with the requirements of these roads, and that they are maintained and kept in repair by diligent supervision and never allowed to get out of repair. It is useless to spend a lot of money in building high-class roads, and then let them go to destruction. In some of the roads in the State of New York, they have a couple of men with one of these speed machines that carry possibly a yard of material, and these two men will run out over possibly 20 or 25 miles in a day and make any little repairs that may be required. Wherever a little wear is seen they patch it up, and in that way they save many thousands of dollars.

The maintenance of roads in this country is what kills us. We are trying to repair roads that never were constructed. We are trying to build roads by a system of expensive and extensive repairs, and anything that can be done in the way of Government aid that will lead to a more comprehensive plan and a more systematic effort and direction of the work along right lines, both in construction and repair, will be a great benefit.

It is a well known fact that in the older countries where they have had great experience in road building and maintaining that a road once properly constructed remains there for centuries, and these roads are in as good condition as when constructed, and they are kept in that condition simply by that method of patrol and repair, and if our work is done that way, every mile constructed will be a mile that we will not have to construct again.

Let us work unitedly, and if there is such a thing as Federal Aid in the construction of roads, it is expected, so far as I am concerned, that the greatest harmony and unanimity should exist between the Dominion Department and the Department of the Province. We will have only just one object in view, and that will be the wise expenditure of the money and the bringing about of improved roads that will accommodate any traffic which may ask to be permitted

to travel over them within reasonable limits. The traffic will be regulated and made to obey the laws and orders of the road. When this is done, if there are a few of these speed men I would not fine them, I would imprison them (Applause). for the second offence anyway.

Let us lay down regulations for the weight of the load. Let us lay down regulations for the speed of the vehicles. Make that speed as rapid as possible. Let us not waste time. If we have facilities that will enable us to move over these roads rapidly, for heaven's sake let them go, if there is nothing in the way (Applause.) The quicker they are out of our sight, and out of our way, the better; they leave money all along the line. (Laughter.) These joy riders are the fellows who pay all the way; I believe the Hamilton and Toronto Highway is practically maintained in the fines imposed against joy riders. I do not know what a joy rider is, but I would not mind betting that if the limit was raised so that automobiles were allowed to travel 30 or 40 miles an hour, that Mr. Pugsley, your Vice-President, would be one of the first men to go the limit. We want to make these roads so that traffic can be moved as speedily as possible. We are starting in on a new era. We are going to construct as we never have constructed before. We are going to build upon different plans and different methods. We are going to aim high. We are going to increase the population of this country by bringing in people who find it a desirable place to reside, and who find it an active place of business and a profitable place to farm. There are wonderful possibilities in this Canada of ours, and the good roads question is one question which is going to solve to the greatest extent many of the difficulties which to-day we encounter by the fact that we are not able to get about.

I have little or nothing to say to you beyond that, on the question of Federal Aid. I do not know what the Federal Aid will be. The resolution has been placed on the order paper by the Honourable the Minister of Railways and Canals, and it is estimated that they will spend $20,000,000 in the next five years towards the improving of roads. The wording of the resolution is "towards the improving and extension of roads." And when that expenditure is made, we hope that results will be obtained for every dollar that is expended, and we hope a united effort will be made on the part of all the Departments in every part of the Dominion, and we hope that this Association will keep up the good work which it has undertaken and which it has systematically carried out for the last quarter of a century, and I hope and trust that at the end of the next quarter century you will be well repaid, and the people of the country will be well repaid, for the efforts you have put forth in connection with this organization. (Loud applause.)

The Chairman: We have all listened with a great deal of attention, and you must feel inspired and encouraged to go back and take up the good work with a stronger hand than you have ever done before. It must be very gratifying to Mr. Campbell to have such close attention as you have given him, and this meeting must be a great contrast to him in comparison with the little meeting he held in the school house near Owen Sound some years ago. Mr. Campbell is a busy man, and he has come from Ottawa to address us, and we have enjoyed and profited by his remarks, and I am sure I am expressing your sentiments when I convey to him your hearty vote of thanks. I think it was in 1907 that Mr. Campbell addressed an audience on good roads in Haldimand, and I heard his address, and from that day to the present I have never forgotten Mr. Campbell.

It must be gratifying to you, Sir, to see the results of that early work. I have much pleasure, Sir, in conveying to you the thanks of this Association for the very excellent address you have given us, and we hope that you will be spared to carry on the work efficiently and thoroughly as you have in the past. (Applause.)

REPORT OF THE NOMINATING COMMITTEE

Honorary Presidents: J. A. Sanderson, Oxford Station; S. L. Squire, Toronto; C. R. Wheelock, Orangeville.

President: K. W. McKay, St. Thomas.

First Vice-President: J. J. Parsons, Jarvis.

Second Vice-President: W. H. Pugsley, Richmond Hill.

Secretary-Treasurer: Hon. Geo. S. Henry, Minister of Agriculture, Toronto.

Assistant Secretary: Major T. L. Kennedy.

Directors: F. A. Senecal, Plantagenet; T. J. Mahony, Hamilton; W. H. Brown, Chesley; John Curry, Strathroy.

Mr. K. W. McKay, President-elect in the Chair: I suppose, gentlemen, as it has been customary in the past, the balance of the programme will be in my charge. I can assure you that I appreciate the honour that has been conferred upon me in placing me in this position. It has been a great surprise to me that I have remained in the work as long as I have, having been associated with it since its inception in 1894. I thought when we reached the stage of passing the Highway Improvement Act that our work was done, and later on when the Ontario Highway Act was passed, I was sure it was done, and now that the Federal Aid is about to be passed, I am more sure than ever, but looking to past experiences, I can now see a broader field and greater work to do than ever before in Ontario in respect to the good roads movement, and it will be my endeavour, in so far as my position as President of this Association will enable me, to see that the good roads idea is developed along the best possible lines in this Province.

We have had an admirable address to-day from Good Roads Campbell. I was intimately associated with Mr. Campbell at the inception of the movement, and after listening to the address to-day, you can well understand why his efforts on behalf of the movement rendered unnecessary the annual meeting of the Good Roads Association after the first two years. Mr. Campbell went from place to place throughout the townships and brought the gospel of good roads to the people, and that was what was wanted.

Ours has been an educational campaign, and for the last 25 years we have achieved results that at one time no one could possibly have anticipated, and I hope that during the next 25 years we will develop to a still greater extent than we have in the past.

I think you all enjoyed yourselves at the banquet last night. It was an innovation on the part of the Executive and one that I think will be continued in the future. (Applause.) While we are all engaged in the work of road improvement, we must have a little enjoyment and get together in a social way, and if the leaders of the country have anything to say to us, we must give them an opportunity of saying it under the best possible auspices. No one could hear the inspiring address delivered by Dr. Cody last evening without carrying away the very best impression of that gentleman. He gave us a larger view of the road question than possibly we would have got through any other source. The

Province of Ontario has legislation on hand that the Minister was not able to talk about any more than Mr. Campbell was able to talk about what the Federal Aid will do, but the movement is developing, and I think it will be fully developed before very long. It will be time enough for us to take the matter up if we feel that the Government is not doing its full share.

THE CHAIRMAN: Mr. Campbell in his address has left the question of Federal Aid in rather an uncertain way from the fact that the matter is not properly before the House of Commons. The suggestion made by the County Council of Victoria was a proper one, that we should stimulate public opinion in the counties favourably to the granting of Federal Aid. If that is done, it will be of considerable assistance in backing up the members of the House of Commons who are favourable to granting Federal Aid.

MR. SQUIRE: Personally I cannot see that any good could be accomplished by this Association arranging for a delegation in connection with the matter at the present time. It does seem that the year of the "flu" has also been a year of deputations at Ottawa and Toronto, and before county councils, and I do not think we should try to have any more deputations.

MR. PUGSLEY: The County of York appointed a deputation, and although Mr. Squire may think that nothing can be accomplished, yet my experience tells me that a deputation has considerable effect. I think probably the question may be referred to the Executive to arrange for a deputation if it seems advisable.

Moved by Mr. Allen, seconded by Warden Turner, of Elgin, that the question of a Provincial deputation to Ottawa in reference to Federal Aid be referred to the Executive of the Ontario Good Roads Association. (Carried.)

THE SECRETARY: We entered this year with a balance of $667 and some odd cents, and we are winding up our business for the year with a balance of $613. We have some $50 odd less of a surplus.

Moved by Hon. Mr. Henry, and seconded by B. W. Robinson, that the report of the Secretary be adopted. (Carried.)

FINANCIAL STATEMENT, 1918-1919

Receipts.

Cash in bank		$667 91
Membership subscriptions:		
County of Middlesex	$15 00	
" Brant	15 00	
" Perth	15 00	
" Wentworth	15 00	
" Hastings	15 00	
" Welland	15 00	
" Simcoe (2 years)	30 00	
" Renfrew	15 00	
" Peel (2 years)	30 00	
" Dufferin	15 00	
" Halton	15 00	
" Prince Edward	15 00	
" Wellington	15 00	
" Kent	15 00	
" Ontario	15 00	
" York	15 00	
" Lincoln (2 years)	30 00	
United Counties of Prescott and Russell	15 00	
Township of York	5 00	
City of Toronto	25 00	
		345 00
Provincial Grant		400 00
Interest		28 38
		$1,441 29

Disbursements.

Convention expenses		$45 00
Expenses of Executive:		
J. L. Kennedy	$85 60	
C. R. Wheelock, President	180 15	
J. A. Sanderson	49 10	
F. A. Senecal	54 30	
J. J. Parsons	41 25	
T. J. Mahony	23 60	
S. L. Squire	27 00	
L. E. Allen	33 00	
K. W. McKay	45 30	
W. H. Brown	42 00	
W. H. Pugsley	20 00	
		601 30
Secretarial expenses		70 00
Stationery, telephones, etc.		20 00
Chairs		16 00
Stenographer		75 00
Balance in bank		613 99
		$1,441 29

The Third Annual Report

OF THE

Trades and Labour Branch

DEPARTMENT OF PUBLIC WORKS

INCLUDING THE REPORTS OF THE

Superintendent of Trades and Labour, Chairman of the Board of Stationary and Hoisting Engineers, Chief Factory Inspector, Chief Inspector of Steam Boilers, Inspector of Labour Agencies

Province of Ontario

1918

(PUBLISHED BY THE ONTARIO DEPARTMENT OF PUBLIC WORKS)

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1919

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To His Honour Sir John Strathearn Hendrie, a Lieutenant-Colonel in the Militia of Canada, etc., etc., etc.

Lieutenant-Governor of the Province of Ontario.

May it Please Your Honour:

I have the pleasure to present herewith for the consideration of Your Honour the Report of the Superintendent of the Trades and Labour Branch for the year 1918.

Respectfully submitted,

F. G. Macdiarmid,

Minister of Public Works and Highways.

Toronto, 1918.

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INTRODUCTION

An increased and intensified service has been the aim of the Trades and Labour Branch during the fourth year of the war, and the extent to which it can claim accomplishment may be judged by the following report.

The efficiency of the Factory Inspection, Boiler Inspection and Stationary and Hoisting Engineers' Branches as well as of our Employment Bureaus, has not only been maintained but improved, and the Statutes of the Province show improved legislation in relation both to factory and boiler inspection.*

With peace at hand and our men returning home in large numbers from the field of war, we look forward with confidence to an increased public interest in industrial problems and the co-operation of all the country's forces in their constructive solution.

W. A. RIDDELL,

Superintendent Trades and Labour.

* Copies of our bulletin, "The Labour Legislation of Ontario," can be secured on application to the Branch.

Ontario Government Public Employment Bureau, Toronto.

ONTARIO GOVERNMENT PUBLIC EMPLOYMENT BUREAUS

At the close of the year 1918, with the armistice signed and the Peace Conference in session, the Trades and Labour Branch of the Ontario Government reports the close of two years of employment service through bureaus, the first of which were established in 1916 at the instance of war emergency. The significance of employment exchanges in the war period has been generally acknowledged and the increasing part which the Ontario Government has played in this undertaking is shown in the following report:—

ONTARIO GOVERNMENT PUBLIC EMPLOYMENT BUREAUS.

TABLE 1.—MEN.

November 1st, 1917—October 31st, 1918.

Bureau	Applications for Work	Help Wanted	Referred to Positions
Toronto (Industrial Section)	3,115	6,075	2,402
Toronto (Farm Section)	5,042	3,750	3,628
Hamilton	1,350	4,629	1,361
Ottawa	8,170	14,363	8,582
London	1,898	2,619	1,354
Fort William (April to October)	1,608	2,554	1,240
Port Arthur (March to October)	2,470	3,874	2,274
Brantford	1,273	1,640	1,273
Kingston (part time)	191	159	108
Kitchener	336	416	296
St. Thomas	465	1,068	392
Walkerville	489	378	307
Totals	26,407	41,525	23,217

During the whole or part of 1918 eleven bureaus were handling employment for men, viz., Toronto, Hamilton, London, Fort William, Port Arthur, Brantford, Kingston, Kitchener, St. Thomas and Walkerville. The number of applications for work in these centres was 26,407; the number of men wanted was 41,525; the number of men referred to positions was 23,217. That is, 87.92 per cent. of the men who applied for work were referred to openings recorded on the files of the bureaus. The number of these orders, however, was far in excess of the number of men available, and men were referred to answer only some 55.9 per cent. of the calls for men received.

It is not difficult to interpret these figures. During the war the shortage of men in certain industries was often acute, and at all times any man who was employable and actually desired to work, could find work to do. The functions of the Employment Bureaus during this period were to facilitate employment adjustments in all departments of labour and primarily to recruit workers for the essential industries. As dilution due to shortage of labour became necessary, the government was able to keep in touch with the process and offer suggestions for the training of unskilled workers. The policy of the service throughout was to aid in essential production by bringing together with the least possible delay

the unemployed applicant and the available job. Details of work accomplished, as interpreting Table No. 1, will be found in the reports of the individual bureaus in the following pages. The Farm Labour campaign carried on by the Trades and Labour Branch in co-operation with the Department of Agriculture, the Organization of Resources Committee, the Canada Food Board and the National Councils of the Young Men's Christian Association and Young Women's Christian Association was successful in 1918 as in the previous year, and the Employment Bureaus were instrumental in placing on the land some 10,000 workers, men, women and boys. Details of this undertaking are found in reports of the various bureaus which follow, viz.: Farm Labour (Men)—page 40, Farm Labour (Women)—page 13, Soldiers of the Soil—page 45.

ONTARIO GOVERNMENT PUBLIC EMPLOYMENT BUREAUS.

TABLE 2.—WOMEN.

November 1st, 1917—October 31st, 1918.

Bureau	Applications for Work	Help Wanted	Referred to Positions
Toronto (Clerical and Industrial Section)	5,264	3,488	3,304
Toronto (Farm Section)	3,490	2,435	1,827
Toronto (Domestic and Personal Service Section)			
Permanent	2,156	4,637	2,109
Casual	554	8,084	10,031[1]
Hamilton	1,552	1,779	1,434
London	1,617	2,016	1,963
Ottawa	388	350	299
Fort William (April to October)	61	62	31
Port Arthur (March to October)	12	14	11
Brantford	366	499	366
Kitchener	42	168	37
St. Thomas	99	300	147
Walkerville	16	12	10
Totals	15,617	23,844	21,569[2]

1. This number represents the number of days' work found; not the number of persons placed.
2. This total includes casual placings as noted in [1] above.

Table No. 2 shows the work of the Women's departments of the Employment Bureaus. In addition to the Toronto casuals, which report 10,031 days' work found, the number of applications for work was 15,063; the number of women wanted was 15,760, and the number of women referred to positions was 11,538. That is, 76.59 per cent. of the women applicants were referred to positions and 73.21 per cent. of orders for women were filled. The significance of these numbers appears from the reports of the individual bureaus. In general the fact that a larger number of women applied for work than could be offered openings was due to the patriotic response of the women to the need for war workers, especially in munition factories and on farms. Suitable employment for these applicants could not always be found. On the other hand, the orders which were hardest to fill were those which asked for permanent household help, rush orders for farm help from farmers who had delayed application, and calls from industries whose forces were depleted by the demand for war workers.

Co-ordination of Employment Facilities.

The end of the war is at hand and we are entering upon a period of readjustment. Although the government employment service was first introduced into Ontario partly as a war measure, the plan for 1919 includes, not a reduction of the service, but a wide extension of its usefulness, with many more provincial bureaus opened and co-operating with each other through the provincial clearing-house in Toronto, and with the other provinces of the Dominion through the Federal clearing-houses in Ottawa and Winnipeg.

This last relationship has been made possible through the Employment Offices Co-ordination Act, passed by the Dominion Legislature in May, 1918. The text of this Act (Appendix) provides for financial support of Provincial Employment Agencies, as well as co-ordination of effort between the various areas of the Dominion. The very nature of the demands upon any employment business requires centralization in order that the wide diversity of the calls for workers may be linked up with the wide diversity of qualifications among applicants; and this is the basis of the plan under way for Dominion-Provincial co-operation.

To assist in the repatriation of returning soldiers, a co-operative relation of the Soldiers' Civil Re-establishment Department of the Government to the employment organizations is being arranged and instructions issued that for all openings preference should be given to returned men, with special attention always to the claims of the partially incapacitated returned soldier.

In this period of after-the-war readjustment, industrial difficulties are unavoidable. Whole-hearted co-operation of employers with the employment facilities offered by the government will do much meanwhile to allay industrial unrest due to the fear of unemployment. Understanding between the forces of industry are in fact impossible if willing men are out of work, and it is to minimize this possibility that Government Employment offices exist. Their establishment is justified in so far as their services are actually sought by the public.

Plans for Expansion.

The plans of the Employment Service of Canada for 1919 include the operation of some eighty offices extending from coast to coast. Of these thirty-five will be located in Ontario, an addition of more than 50 per cent. to the present offices. This expansion of service is made necessary by the expected requirements of some half million soldiers and war workers returning to industrial and agricultural pursuits.

THE ONTARIO GOVERNMENT PUBLIC EMPLOYMENT BUREAUS.

TORONTO

Superintendent, J. A. Miller, B.A.

Location—On May 30th, 1918, the Bureau was moved from 15 King Street East, to 43-45 King Street West.

MEN'S DEPARTMENT *

Industrial Section.—Director, Robert Edgar.

Early in the year, the call for bushmen was brisk on account of the market demand for firewood, but the supply of men was very limited. Similar orders in the fall for men for bush work and pulp mills were generally filled, as the closing down of munition plants set free a large body of labour.

Orders for the re-building of Halifax, for carpenters, plasterers, painters and labourers, were largely met and many men were secured in Ontario for this work of rehabilitation.

Throughout the year skilled machinists for contract shops and railroads were in demand. The office was able to give good service in this work and to supply also blacksmiths, boilermakers, patternmakers, etc.

To an encouraging extent, merchants and manufacturers are learning to come to the bureau for office help and warehouse stockmen; and positions of this kind were in most cases satisfactorily filled.

In general the industries which received the largest number of workers from the bureau were the Building Trades and Metal Trades.

Shortage of Labour.—At one time or other throughout the year, almost every industry was calling for more workers than could be secured. Because of the many openings, workers hired were sometimes restless and left in a few days. The high wages paid for munition productions attracted men of every trade and left a big shortage of help in other lines. Orders were received for the first time from a window glass manufacturer and new orders from lumber, pulp and paper companies were appreciated. These latter calls were generally met satisfactorily through the Government Employment Service.

New Orders.—Occupations listed for the first time on the books for 1918 were: window-glass workers, clappers (in glass works), wire splicers, locomotive firemen, railway switch tenders, railway car inspectors, railway telegraph operators, and railway car repairers.

* The report of the farm section under the direction of J. A. Miller is given under the general heading "Farm Labour," on page 40.

TABLE 3.—ANNUAL STATEMENT, TORONTO.

November 1st, 1917—October 31st, 1918.

Industrial Section.

Men Referred to Positions.

—	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Total
Building Trades	1	12	38	45	31	13	13	27	5	11	21	37	254
Munitions	6	2	....	....	....	32	1	....	5	47	7	1	101
Factories	15	21	58	75	37	17	8	1	11	58	104	191	576
General Labour	43	75	66	46	32	81	90	56	82	161	195	52	979
Miscellaneous	49	49	21	25	12	11	15	14	3	45	114	134	492
Total	114	159	163	191	112	154	127	98	106	322	441	415	2,402

TABLE 4.—MEN—INDUSTRIAL SECTION—TORONTO.

1917-1918.

—	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Total
Applications for Work	185	258	370	377	206	175	104	73	97	429	314	527	3,115
Men Wanted	322	163	183	254	142	240	1238	171	453	845	824	1240	6,065
Referred to Positions	114	159	163	191	112	154	127	98	106	322	441	415	2,402

WOMEN'S DEPARTMENT

CLERICAL AND INDUSTRIAL SECTION.—Director, Miss Marion C. Findlay, B.A.

Location—45 King Street West.

Service.—In the Clerical and Industrial Section of the Toronto Bureau, Women's Department, by far the largest number placed were in the metals and machinery group. Of the 1,378 workers in this group for whom the bureau found employment, 971 worked on munitions, 139 as machine operators on agricultural implements and 122 in the manufacture of aeroplanes. Business next in importance was transacted with operators on clothing, and the group of woodworkers ranked third in point of numbers.

Shortage of Labour.—Those industries which suffered from a lack of workers during the year were chiefly clothing factories, paper mills, printing shops, lathe and lumber mills and textile mills. The bureau found it impossible at times to get as many women as these industries desired.

New Industries.—Many plants which had not before made use of the bureau applied to it for women during the year. There were calls for machine workers in steel, for wooden box workers, for linen weavers, rubber workers and piano hands. There were also orders from the United States Ordnance for Munition Inspectors and from the Royal Air Force for their aeroplane repair and engine repair departments.

Women operators on agricultural implements gave complete satisfaction to the firm which introduced this policy. Many of the operations corresponded to those in munition plants, such as drilling, operating lathes and rivets and bore machines, and assembling; but it was a new departure to have women on punch-presses, eye-bolts, bulldozers, bolt threading, knife grinding, coremaking, feeding saws and in the smithy. Women in a Toronto aeroplane factory also made good operating motors, and in general, undertaking work similar to the usual munitions operations.

Co-operation with Other Bureaus.—The Toronto office placed workers referred from time to time by the London and Hamilton offices, and gave cards of introduction to workers moving to either of these cities. Orders received from Brantford were also filled in co-operation with the bureau there.

In spite of the difficulty in sending women out of town, the bureau during the year sent to Shawinigan Falls, P.Q., fourteen girls for chemical plant work and three university women for chemical laboratory work. A number of girls and women were also sent to factories in Guelph and Port Dalhousie.

Association with the Department of Public Health was valuable during the "Flu" epidemic, and the bureau was instrumental in sending nurses and general helpers to homes where there was sickness, as well as to hospitals and offices which were overtaxed because of emergency work.

The bureau has appreciated co-operation with the University, the Big Sister Association and certain of the churches.

TABLE 5.—ANNUAL STATEMENT, TORONTO.

November 1st, 1917—October 31st, 1918.

Clerical and Industrial Section.

Women Referred to Positions.

—	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Total
Offices and Shops	23	9	23	14	6	32	37	24	57	127	113	131	596
Munitions	20	71	27	30	14	38	77	68	120	253	222	323	1,269
Factories, other than munitions	84	54	19	15	64	139	128	155	59	226	122	110	1,175
Miscellaneous	10	7	15	5	7	24	32	27	39	31	27	40	264
Total	137	141	84	64	91	233	274	274	281	637	484	604	3,304

TABLE 6.—WOMEN—CLERICAL AND INDUSTRIAL SECTION, TORONTO.

1917-1918.

—	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Total
Applications for Work	442	326	392	497	402	328	285	549	468	461	522	592	5,264
Help Wanted	114	121	66	66	93	238	280	255	300	762	454	739	3,488
Referred to Positions	137	141	84	64	91	233	274	274	281	637	484	604	3,304

TABLE 7.—SALARIES ASKED BY APPLICANTS FOR OFFICE WORK.

Per Week	Typists	Bookkeepers	Clerks	Stenographers
Less than $8	.....	.....	4.26%	.....
$8–$10	25%	.....	13.83%	3.2%
10– 12	25%	8.60%	25.53%	14.4%
12– 14	18.75%	17.14%	39.36%	32%
14– 16	25%	22.85%	17.02%	29.6%
16– 18	6.25%	34.27%	.....	12%
18– 20	.....	17.14%	.....	5.6%
20– 25	.....	.....	.....	3.2%

DESCRIPTION OF APPLICANTS FOR OFFICE WORK.

Experience:

18.72%	had experience as	clerks.
36.84%	"	stenographers.
5.27%	"	typists.
11.13%	"	bookkeepers.
7.60%	no " except	students.
3.51%	no "	
1.16%	"	sales clerks.
5.86%	"	teachers.
4.65%	"	telephone operators.
2.33%	"	munition workers.
1.77%	"	supervisors.
1.16%	"	factory workers.

Applications:

40.34%	applied for positions as	stenographers.
36.83%	" "	general clerical workers.
11.37%	" "	bookkeepers.
5.11%	" "	typists.
3.98%	" "	telephone operators.
1.70%	" "	supervisors.
.67%	" "	sales clerks.

Professional Service.—The beginning of a professional service is already seen in that during the past year 80 women registrants of this class are recorded. Of these 21 asked for work as supervisors in factories, 8 of whom had previous experience as nurses; 10 specified patriotic work only, and 10 asked for social service appointments: 23 were university graduates, 10 with teaching experience, 6 with clerical experience and 7 with none. Five applicants asked for ambulance driving overseas and were put in touch with the proper authorities in England.

The salaries asked by the applicants in the professional group ranged from $800.00 to $1,500.00 per year, while the highest salary paid to any women placed through the bureau was $1,200.00.

FARM SECTION.—Director, Miss Hazel L. Martin, B.A.

Location—45 King Street West.

Organization.—The Women's Farm Section of the Toronto Branch of the Ontario Government Employment Bureau continued the work of putting women on the land in 1918, as in the preceding year. The co-operation of the Y.W.C.A.

was again secured for staffing and provisioning the camps; the Canadian Militia provided military tents, and the farmers supplied houses, beds and mattresses, kitchen and dining-room equipment.

The office staff consisted of a director and assistant director, a clerk and two stenographers. In addition to these there was a field staff of three district secretaries, who secured orders, supervised the work of the girls, the conditions under which they worked, and regulated the pay in case of dispute about the contract with the farmers who engaged National Service Workers. To ensure adequate supervision, a Camp Secretary was appointed in all the larger camps, particularly where girls worked for a number of employers. The Camp Secretary was required to fill out the earnings card for each worker, send them to the District Secretary once a week and to report any dissatisfaction among the girls or the farmers.

National Service Girls.

The Young Women's Christian Association looked after staffing and provisioning the camps. Their staff consisted of a housemother, cook, and assistants according to the number in the camp. The girls provided their own bedding and towels and paid $4.50 per week for board.

The Canadian Department of Militia supplied military tents to the farmers, who were required to pay freight to and from Toronto. This helped to solve the housing problem. In addition, if possible, the farmers provided in each locality a house large enough to be used as kitchen, dining-room, storeroom and living-room. They also supplied beds, mattresses, kitchen and dining-room equipment. Usually a group of farmers combined to secure house and equipment. The housing cost each farmer $10 to $15 for every girl employed.

Number of Camps and Workers.—During the year 1917-1918 there were in all 1,827 workers placed by the Women's Farm Department, Toronto.

Number on fruit and vegetable farms	1,233
" in canneries	257
" on mixed and dairy farms and in farm houses	302
" doing flax work	30
" making cheese boxes	5
Total of workers	1,827
Number of camps supervised by Y.W.C.A., in conjunction with the Employment Bureau	38
Number of camps supervised by Employment Bureau only	50
Total number of camps	88
Total number of girls in groups and camps	1,581
Number of girls in camps supervised and provisioned by the Y.W.C.A.	1,188
Number of girls in groups supervised by Employment Bureau only	393

These figures do not include workers placed by the Department on individual farms. They are also a report only of the work done by the Toronto Bureau. The total number of women placed on farms by the Ontario Government Employment Bureau in 1918 was approximately 2,400. Centres of distribution, other than Toronto, were Hamilton, London, Ottawa, Kingston and Brantford.

Kinds of Work.—Fruit and vegetable farms, mixed and dairy farms and canneries received the bulk of the workers this season. In the fruit and truck work there was an increase of more than 50 per cent. over last year, and in canneries an increase of 500 per cent. Work on mixed, dairy and flax farms was new this year. Listed among the dairy workers were five girls who ran milk routes with success. Five girls made cheese boxes, doing every operation except bending the body of the box.

Employment Difficulties.—In the early part of the season over 3,000 women registered for farm work. Because of the poor strawberry crop, many of these girls could not be used for the season for which they applied. During raspberry time it was difficult to secure enough workers for all calls. Practically all orders were filled when growers agreed to pay good wages.

In the fall fruit season, though wages increased, it was impossible to secure sufficient help to fill all orders. This was due to the fact that teachers, High school students, college women and business women were no longer available.

It was most difficult to secure workers for canneries mainly because most girls prefer outdoor work, and because conditions in canning factories in the past have been unsatisfactory. This year, however, many girls, after trying both, preferred factory to outdoor work.

Co-operation with other Bureaus.—The Government Employment Bureau in other cities registered women for farm work and if the girls could not be placed locally, duplicate cards were sent to the Toronto office and the girls placed from there. At times the other bureaus were short of workers and called upon the Toronto office to assist in filling orders.

TABLE 8.—SUMMARY OF INFORMATION *re* WORKERS IN GROUPS AND CAMPS, 1918.

(*a*) *Age of Workers*:	Per cent.
16-17 years	18.6
18-20 "	33.0
21-25 "	31.2
26-30 "	9.8
30-40 "	4.6
40-60 "	2.8
	100.

(*b*) *Occupation of Workers*:	Per cent.
High and private school students	25.1
At home (including married women)	[illegible]
Teachers	16.8
Business women	14.0
University undergraduates	7.8
Factory workers	8.1
Houseworkers	3.5
Professional	3.0
	100.

(*c*) *Education of Workers*:	Per cent.
High school	53.8
Public school only	14.4
Normal school	[illegible]
University undergraduates	9.1
University graduates	3.3
Special training (Household Science, Music, etc.).	5.5
	100.

(*d*) *Experience of Workers*:	Per cent.
Brought up on a farm	7.4
Experience in small friuts	47.0
" vegetable work	29.7
" tree fruits	36.3
" milking	6.9
" handling horses	9.5
" feeding stock	5.8
No experience	40.6
	100.

TABLE 9.—SUMMARY OF INFORMATION *re* WORKERS ON MIXED AND DAIRY FARMS AND IN FARM HOUSES, 1918.

(*a*) *Age of Workers*:	Per cent.
18-20	30.6
21-25	28.6
26-30	15.0
30-40	21.4
40-50	3.9
Over 50	5.0
	100.

(*b*) *Occupation of Workers*:	Per cent.
Business women	24.3
Married	20.9
Domestics	18.1
Leisured	12.4
Factory	7.6
High and private schoo's	7.6
Teachers	4.3
Professional	2.9
College	1.9
	100.

Married women were placed chiefly in farm houses. Over 70% had one or two children. 25% were so'diers' wives. In all, 43 children were sent with their mothers to farms.

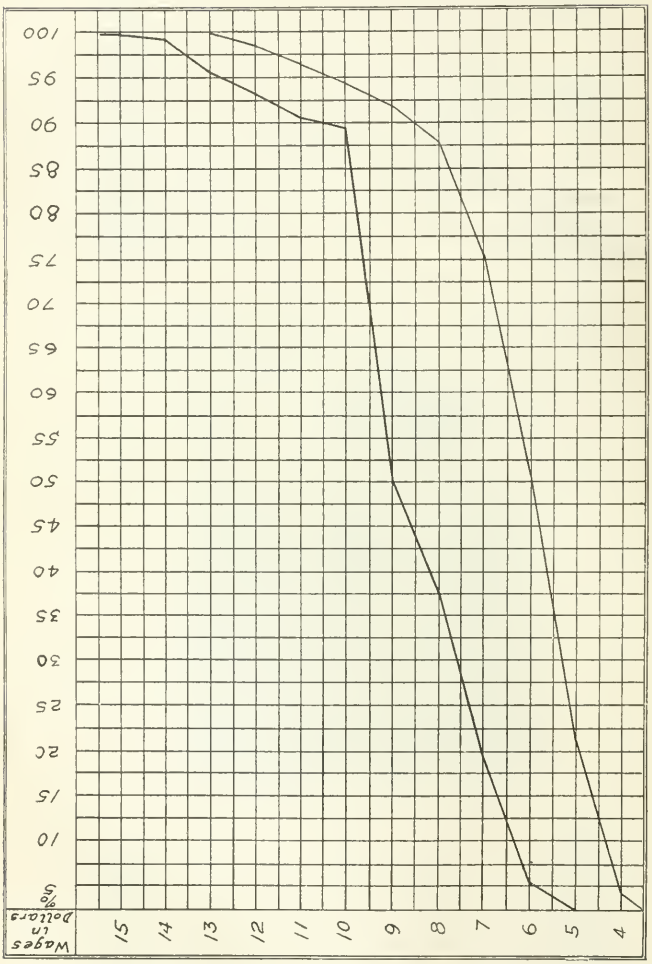
(c) *Education of Workers*:	Per cent.
Public school only	58.8
High school	35.0
University	2.1
Normal school	4.1
	100.

(d) *Experience of Workers*:	Per cent.
Brought up on farm	24.0
Experience in small fruits	35.1
" vegetables	35.6
" tree fruits	34.1
" milking	26.5
" handling horses	37.5
" feeding stock	31.0
No experience	34.

Several girls had special training in bee-keeping, poultry work and and truck driving.

A Patriot.

(e) *Nationality of Workers*:	Per cent.
Canadian	59.3
English	27.1
Irish	1.9
Scotch	6.3
Swedes	1.5
American	1.5
Belgian	5.0
Swiss	5.0
Norwegian	9.0
	100.



This chart shows the comparative earnings by the week of women on farms in 1917 and 1918. The increase in 1918 is appreciable.

(f) *Time when Workers were Available:*	Per cent.
April	2.18
May	16.36
June	39.80
July	60.10
August	59.06
September	40.68
October	18.46
November	1.13

Kinds of Work done by National Service Girls:—

(*a*) *In Fruit Industry.*—Picking of all kinds of small and tree fruits, pruning, spraying, budding, transplanting and bridging, hoeing, weeding, cultivating fruit patches, packing, covering, putting handles on baskets, driving trucks to market and marketing fruit.

(*b*) *In Vegetable Work.*—Hoeing, weeding, transplanting, gathering in vegetables, etc.

(*c*) *On Dairy Farms.*—Cleaning stables, milking, butter and cheese making, testing for butter fat and driving milk routes.

(*d*) *On Mixed Farms.*—Dairy work of all kinds, caring for stock, work with horses, harvesting (except pitching hay and sheaves), threshing (all operations), driving tractors.

(*e*) *In Canneries.*—Preparing fruit and vegetables for canning, filling, running machinery, labelling, testing, packing and unpacking freight cars.

(*f*) *Miscellaneous.*—Making cheese boxes, flax pulling and greenhouse work.

TABLE 10.—SUMMARY OF WEEKLY EARNINGS OF NATIONAL SERVICE GIRLS, SEASON 1918.

Amount per Week:	Per cent.
Over $15	.16
Between $14 and $15	.18
" 13 " 14	4.29
" 12 " 13	1.99
" 11 " 12	1.59
" 10 " 11	3.41
" 9 " 10	30.56
" 8 " 9	19.36
" 7 " 8	19.36
" 6 " 7	13.80
" 5 " 6	5.40
	100.

This summary does not include the wages of girls who stayed less than two weeks, or who worked very irregularly.

NATIONAL SERVICE GIRLS PLACED BY THE TORONTO OFFICE IN 1917 AND 1918.

Number placed in 1918	1,827
Number placed in 1917	856
Increase	971 or 113.4%

N.B.—These figures apply to the work of the Toronto Bureau only. The total number of National Service girls placed in Ontario in 1917 was 1,265 and in 1918, 2,335.

PUBLICITY.

1. *Newspapers.*—The Employment Bureau has had the fullest co-operation from the newspapers of Toronto. Representatives from the various organs interviewed officials one or more times a week. They were always interested in the work and several times by putting facts before the public they helped in procuring extra girls when needed at rush seasons.

The most prominent papers outside of Toronto were notified early in the season that if they wished they would be notified regularly about the work of the department. A large number replied and thus a list of those interested was obtained. This was the chief method used for letting the farmers in a community know the type of workers available, and for interesting suitable women in the work.

A National Service Float.

2. *High Schools.*—Early in the Spring talks were given at various High and Private Schools of the city, and the motion picture film of the National Service girls at work in 1917 was shown. Much interest and enthusiasm was aroused in this way.

(3) Representatives of the bureau were invited from time to time during the Spring to give addresses at Normal Schools, Women's Canadian Clubs, Women's Institutes, and under the auspices of other organizations in Ontario, and this form of advertising met with gratifying results.

CO-OPERATION.

1. *Employers of Labour.*—The farmers, as a whole, have appreciated the efforts of the Government Employment Bureau to supply them with workers and have treated the National Service girls fairly. Where any were not satisfied to sign and keep to a written contract, there was difficulty in guaranteeing workers.

2. *Workers.*—As wages are higher, as a rule, among the workers supervised by the Government, the girls prefer to be sent out by the bureau. They feel that they have someone to whom to appeal in case of unjust treatment. They also feel that the bureau is interested in each girl. Many on their return from work come to the office to relate their experiences, to tell how the conditions may be improved and to express appreciation of the efforts made by the bureau on their behalf.

(3) *Public in General.*—The public in general have been keenly alive to the importance of women's farm work during the war and have appreciated the efforts of the Ontario Government to forward this movement. Certain criticism has been traced to the lack of distinction between workers placed by the bureau and those located by private enterprise. On the whole the public have realized that the National Service girls were well cared for and made a splendid contribution to war work.

Domestic and Personal Service Section.—Director, Miss J. Y. Duff.

During the year 1918, as previously, expansion in this department of employment service has been greatly handicapped by the excessive shortage of workers. Our experience has shown, too, that even where workers are available, the old customs for the household worker are passing away and a radical change of system may be necessary in order to adjust the points at issue between employer and employee. The claims of the workers are chiefly for systematized work, better and more regular hours, non-residence with a correspondingly higher wage, or fitting residence accommodation and regulations. The employers, on the other hand, are asking for trained workers and a consequently more efficient service. They complain of immoderate demands, especially from non-resident workers and workers by the day. Some method of standardization, both of efficiency and its rewards, would seem to be the method for meeting what has actually become an intolerable situation for many of the women immediately concerned. In the meantime, the demand for household service continues greatly in excess of the supply.

In spite of this shortage of workers, the Domestic section of the Toronto bureau has had much encouragement during the year. It reports generous co-operation from many outside agencies, especially:—

(a) The Department of Public Health.
(b) The Neighbourhood Workers' Association.
(c) The Social Service Commission.
(d) The Juvenile Court.
(e) The Big Sisters' Association.
(f) The Social Service department of the Toronto General and other hospitals.
(g) The House of Industry.
(h) Clergymen and Deaconesses of various churches.

The value of this connection with other social forces in the city was particularly evident during the influenza epidemic, when the bureau was called upon by the Department of Health and by the Medical Health Officer of Toronto to register

both voluntary and paid workers for help in emergency hospitals and private homes. In the month of October in this work 843 helpers were called for and 454 orders were filled.

Throughout the year there have been frequent opportunities for co-operation with the Y.W.C.A. Employment Service, and the Civic Employment Bureau has occasionally sought or supplied information as required regarding individual registrants. In a few instances, by special request, domestics who desired positions in Western Canada were recommended to the Government Employment offices in Winnipeg and Regina.

TABLE 11.—ANNUAL STATEMENT, TORONTO.

November 1st, 1917—October 31st, 1918.

Domestic and Personal Service Section.

Permanent.

—	In Toronto			Out of the City		
1917–18	Applications for Work	Help Wanted	Referred to Positions	Applications for Work	Help Wanted	Referred to Positions
November	128	195	133	10	31	15
December	140	230	154	3	24	9
January	141	249	173	4	29	6
February	176	254	119	5	38	8
March	187	281	137	7	61	16
April	125	380	129	6	61	13
May	130	378	107	13	64	23
June	110	249	106	9	80	25
July	141	246	132	15	81	15
August	119	321	120	3	79	10
September	130	380	141	6	47	10
October	543	863	504	5	16	4
Totals	2,070	4,026	1,955	86	611	154

Wages Offered by Employers to Permanent Workers.—During the year 1918, there was no striking change in wages as offered by employers to household workers, though a general tendency upward was apparent. As usual, wages offered in institutions were higher than those in private homes, the majority varying from $35 a month to $60 a month for competent cook or cook-general, living in. Housemaids, kitchenmaids and waitresses received much less, from $20 to $30 a month being the common figure. Hours and wages for those living in the institution varied greatly, due to the lack of any standardizing influence. Workers complained of lack of compensation in wages when they were not provided with living accommodation.

In private homes, cooks and cook-generals received most commonly from $25 to $30 a month, including room and board. A number ran as high as $40 a month and a very few received $50 a month. In some few cases the wages were $20 a month or less.

Where the worker lived out of the house, conditions as to hours, rates, etc., were widely various, so much so that generalizations are practically impossible. If schedules of hours and rates of pay could be established for household work, a new era for both employers and employees would be at hand.

Orders for household workers during the year were largely for generals, but included a large number of cooks, housekeepers and housemaids and also companions, practical nurses, children's nurses, nursery governesses, kitchenmaids, laundresses and seamstresses.

Wages for Day Workers.—The rate of pay for workers by the day, laundresses, charwomen, etc., has increased in 1918 to a usual $2 with carfare and two meals, for an eight-hour day. When pay is by the hour, the rate is usually 25 cents. A clear understanding as to whether payment is to be made by the day or by the hour is one of the most difficult adjustments in this department of the work Some thought has been given to this difficulty with the idea of establishing a time and rate schedule which will be satisfactory to all.

TABLE 12.—ANNUAL STATEMENT, TORONTO.

November 1st, 1917—October 31st, 1918.

Domestic and Personal Service Section.

Temporary.

—	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Total
Applications for Work	58	76	50	29	46	60	35	45	50	28	39	38	554
Help Wanted	431	550	428	357	533	807	753	687	661	709	1090	1078	8,084
Referred to Positions	348	759	628	614	716	1185	892	1075	867	1045	1187	718	10,031*

* This total represents the number of days' work found; not the number of persons placed.

HAMILTON

MEN'S DEPARTMENT

Superintendent, T. H. Wills.

Location.—On March 9th, 1918, the Ontario Government Employment Bureau was moved from 28 Main Street East to 83-85 James Street North. The present accommodation is both central and commodious.

Service.—The energies of the bureau were directed to supplying help as required both in the surrounding farm district and in the numerous manufacturing plants in the city. In actual accomplishment the agricultural reports have most to show, as the bureau supplied some 509 farm labourers, gardeners and nurserymen. The building trades are next in order, with a record of 159 workers secured, and metals and machinery (including munitions) received 105 men from the Government service.

Shortage of Labour.—Practically every industry reported difficulty in securing men at some time in the year, and orders from a number of trades remained unfilled periodically. In spite of difficulty in getting men, the bureau was able to give service to several new industries during the year, including sugar refining from beets, nickel refining, ship-building, the manufacture of gas by coke-oven, and brass smelting and refining.

TABLE 13.—ANNUAL STATEMENT, HAMILTON.

November 1st, 1917—October 31st, 1918.

Men Referred to Positions.

—	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Total
Agriculture	10	4	10	9	60	75	86	141	73	33	18	36	555
Munitions	22	4	5	1	5	6	....	2	4	4	4	5	62
Building Trades	9	7	34	54	16	10	5	6	10	11	9	4	175
Factories	32	26	12	8	5	6	3	7	8	10	8	17	142
General Labour	7	17	....	5	....	....	5	2	11	....	4	4	55
Miscellaneous	14	29	23	17	7	15	5	99	72	33	17	30	361
Casuals	3	1	....	....	....	....	5	1	....	1	....	....	11
Totals	97	88	84	94	93	112	109	258	178	92	60	96	1,361

TABLE 14.—HAMILTON—MEN.

—	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Total
Applications for Work	111	117	107	133	111	127	85	118	197	85	55	104	1,350
Men Wanted	180	150	138	129	118	193	424	908	503	417	553	548	4,269
*Referred to Positions	97	88	84	94	93	112	109	258	178	92	60	96	1,361

* Including casuals.

TABLE 15.—WEEKLY WAGES.

	Previously earned by Applicants. Per cent.	Offered by Employers. Per cent.
Less than $10	7	8.
$10–$12	5	1.5
12—14	9	1.5
14—15	3	2.
15—16	13	10.
16—17	14	12.
17—18	4	5.
18—19	8	7.
19—20	15	14.
20—25	13	23.
25—30	4	6.
30—35	3	5.
35—40	.5	2.
40—50	1.5	3.

WOMEN'S DEPARTMENT

Superintendent, Miss Margaret K. Strong, M.A.

Location.—During the year the location of the office was changed to 83-85 James Street North, the centre of the business section of the city.

SERVICE.

1. *Agriculture.*—As Hamilton is located in the heart of an agricultural and fruit-growing section of Ontario, much of the interest of the bureau has always centred in farm work and this was the case in 1918 as in the previous year. Through co-operation with the Women's Farm Section of the Toronto Bureau, local applicants were placed in farm and fruit camps under the supervision of the Y.W.C.A.

A number of independent camps were also established with satisfaction to both farmers and workers. The largest of these were located at St. David's and Aldershot; other groups of four or five workers each lived in the farmers' houses at Freeman, Grimsby, etc.

The possibility of securing reliable women and girls from the city to do fruit and vegetable work by the day was demonstrated in that, during the height of the season, each morning at seven o'clock some half-dozen motor cars left the bureau loaded with enthusiastic workers.

The total number of women and girls placed on farms by the office was 229. Twenty women were secured for household work on farms, but this number was entirely inadequate to the demand. Those who wanted inside work preferred the city and it was largely the lure of out-of-doors which brought the large registration of farm help. A genuine and effective patriotic service was rendered by these workers.

2. *Industry.*—Hamilton is essentially a manufacturing city with large industrial demands. The big difficulty throughout 1918 was to secure anything like an adequate amount of labour to meet the orders of employers. Munitions work for women was on the decrease during the year and this was a disappointment to many applicants for work. At some time during the year, practically all industries were short of help, notably cotton, linen and knitting mills, paper box factories, canneries and tailoring shops.

Two leading industries opened their shops to women for the first time and secured their workers from the bureau. One firm manufacturing agricultural implements, employed women on nearly all processes, including the operation of drills, lathes, hammers, shapers, millers, grinders, etc., as well as painting, stencilling, assembling and finishing. Other factory operations, comparatively new to women, on which they worked in Hamilton shops, involved core machines, threading machines, tapping machines, punch machines, screw machines and planes. One order was received for a crane operator. Women were used both on machines and finishing by at least one cabinetmaker.

During the year the industries which received the largest number of workers from the bureau were metals and machinery, canneries and cotton-mills.

Table 16.—Wages Offered in Factories.

	Per cent.
$7.00 or less	17.4
Over $7.00 to $8.00 inclusive	32.6
$9.00	17.4
$10.00	4.4
$11.00	15.2
$12.00	8.7
$15.00 or over	4.3
	100.

In practically all instances these figures are initial and frequently they are modified by bonus systems, etc. In machine shops the prevailing rate for beginners was 25c. an hour, with prospect of an increased basic rate and piece rates. An increasing number of manufacturers acknowledged the principle of equal pay for equal work when men and women were working on piece rates, but day rates were seldom comparable.

That the employment question is directly affected by this wage situation is evident. Only 32.6 per cent. of the orders received in the office during the year offered wages of $10 a week or more. On the other hand, those of the applicants willing to accept wages less than $10 a week numbered less than one-quarter, while 77 per cent. asked a minimum of $10, or more. Perhaps this accounts for the difficulty in securing the workers asked for.

3. *Office and Shop.*—An extension of the employment of women in shop service was of interest in 1918. Girls were called for as clerks in hardware and drug stores; women elevator operators became usual, and occasionally girls drove motor trucks.

For the usual line of clerical positions, the bureau was not taken advantage of as extensively as it might have been. In the minds of many citizens the employment bureau was a patriotic agency and it was hard to show them the facilities it offered for the centralization of employment of all kinds. The discrepancy between wages offered and wages asked here is quite as poignant as in industrial lines. This may be partially accounted for in that workers applied frequently, not because they were unemployed, but because they wished to better their positions. There was a minimum of unemployment among women in the city throughout the year.

4. *Domestic and Personal Service.*—The use of a public employment bureau for the registration of household help is generally recognized by the public. Large numbers of orders were received during the year, but it was impossible to secure an adequate registration of competent workers.

The records of this department show:

623 applications for work.
737 help wanted.
586 referred to positions.

Wages offered in the city varied from $10 a month to $40 a month in private homes, with a prevailing rate of from $20 to $30 a month. On farms the wages were generally lower, seldom exceeding $20 a month and running as low as $8.

Day Workers.—The demand for houseworkers by the day is constantly on the increase, and the bureau served the public largely in bringing the employees of this class of labour in touch with applicants.

TABLE 17.—ANNUAL STATEMENT, HAMILTON.

November 1st, 1917—October 31st, 1918.

Women Referred to Positions.

—	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Total
Munitions	....	....	....	1	....	....	17	12	....	....	....	....	30
Factories, other than munitions	40	16	15	13	7	26	16	76	50	23	37	30	349
Offices and Shops	8	1	11	5	2	4	....	5	2	....	....	11	49
Agriculture	2	3	1	1	2	2	9	66	99	17	12	15	229
Household Help	49	37	54	39	61	41	52	54	35	42	48	74	586
Hotels and Restaurants	3	6	11	3	5	4	5	6	11	10	8	7	79
Casuals	13	5	3	....	11	10	15	6	27	2	8	12	112
Totals	115	68	95	62	88	87	114	225	224	94	113	149	1,434

TABLE 18.—HAMILTON—WOMEN.

1917-1818.

—	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Total
Applications for Work	133	66	127	83	137	155	144	270	142	102	79	114	1,552
Help Wanted	92	78	107	83	118	164	228	179	253	120	168	189	1,779
*Referred to Positions	115	68	95	62	88	87	114	225	224	94	113	149	1,434

* Including casuals.

LONDON

MEN'S DEPARTMENT

Superintendent, H. Tutt.

Location.—There has been no change in the location of the office during the year. Address: 108 Dundas Street.

Service.—The largest demands upon the London Bureau during 1918 were those of agriculture, the building trades and munitions. To the farmers of the district were directed men to the number of 646; the building trades secured 145 and munition factories 69. Some employers in the city remain indifferent to the advantages of a government employment agency, but the majority are beginning to realize the value of the centralization of employment effort and to rely on the office to keep them supplied with men.

Shortage of Labour.—Some shortage of men was apparent throughout the year and the orders of a few firms could not be filled. These were chiefly for high class mechanics, such as toolmakers. For the most part, industries which made direct application for help were able to secure a sufficient number of workers, and in no case did the bureau cease its efforts until ascertaining that the employer had his full staff of men.

New Opportunities for Employment.—Industrial development in the London zone shows considerable progress during the year, with new orders as a natural result. A number of employers applied to the bureau for the first time. Among these were three munition plants in St. Thomas, Walkerville and Sarnia; three large food factories, the Grand Trunk Railway in London and the Toronto Street Railway. These were in addition to new local factories, including a foundry, a machine shop and a knitting-mill.

Co-operation with Other Bureaus.—The Toronto Bureau referred a number of men and boys to farmers in this zone. Particulars regarding help wanted for shipbuilding were forwarded from the Hamilton Bureau, and those regarding Halifax reconstruction came from Ottawa through the head office of the Trades and Labour Branch in Toronto. The co-operation of this bureau with the Department of Agriculture's district representatives was complete. With a few individual exceptions, there was no transfer of workers outside this zone.

TABLE 19.—ANNUAL STATEMENT, LONDON.

November 1st, 1917—October 31st, 1918.

Men Referred to Positions.

—	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Total
Agriculture	61	28	27	43	66	96	37	42	89	91	46	20	646
Munitions	....	....	....	....	....	....	15	22	....	....	12	20	69
Building Trades	3	3	10	13	....	1	....	1	5	9	84	16	145
Factories	2	2	5	16	8	18	2	....	2	12	18	27	112
General Labour	4	15	29	6	11	25	18	24	7	5	6	4	154
Miscellaneous	11	3	22	9	6	19	13	3	31	10	18	19	164
Casuals	....	....	16	....	....	5	7	4	4	7	14	7	64
Total	81	51	109	87	91	164	92	96	138	134	198	113	1,354

TABLE 20.—LONDON—MEN.

1917-1918.

—	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Total
Applications for Work.....	94	55	189	185	206	209	122	157	176	160	215	130	1,898
Men Wanted.....	105	69	161	119	164	337	212	157	135	184	730	246	2,619
Referred to Positions.....	81	51	109	87	91	164	92	96	138	134	198	113	1,354

WOMEN'S DEPARTMENT

Superintendent, Miss Ethel MacRobert, B.A.

Location.—108 Dundas Street.

SERVICE.

1. *Clerical.*—It was a source of satisfaction that so many of the orders for clerical help were met. War offices depended on the bureau largely for their staff, and efficient service was guaranteed in that, to supplement written recommendations, tests in stenography and typewriting were given before applicants were sent to prospective employers.

2. *Industrial.*—The largest demand for industrial workers came from manufacturers of metals and machinery, and of these the majority were munition operators. These orders were not confined to the city of London, but came also from St. Thomas and Ingersoll. The clothing industry claimed the next largest body of workers, while increased activity among textile manufacturers was evident. Several plants were enlarged during the year and a new one erected These additions accommodate several hundred employees and offer new departments of work from the spinning of yarn, dyeing and weaving of garments, to the finishing of hose, underwear and sweaters. Another company has opened a mill to weave the silk used in the manufacture of gloves.

Certain industries, especially in food and clothing, were affected by seasonal shortage of workers, but at no time was the output in any trade actually crippled for lack of help. That the demand for skilled clothing and textile operators could never be fully gratified, while the number of unskilled applicants was constant, made it appear that employees would do well to foster preparatory training in the new Technical School.

3. *Domestic and Personal Service.*—Table No. 21 is an interesting commentary on the popular idea that household workers are an extinct class. While there was an undoubted shortage of applicants for this work, yet, including hotels, restaurants and institutions with private homes, 648 applicants were sent from the London Bureau. This does not suggest absolute depletion.

Domestic workers could not be secured for country employers, largely owing to the smallness of the wage offered. In many cases this wage did not exceed $10 a month.

4. *Agriculture.*—A report of the work of the Women's Department of the London Bureau would be incomplete without some reference to its agricultural service. To fill the 165 orders for women received, 158 applicants were referred.

The bureau was able to send flax spreaders to save the situation at Alvinston, and to secure the sixteen cooks required for the S. O. S. camps at Clinton and Chatham. In all this work the co-operation of the press, the various patriotic societies and the schools was greatly appreciated.

TABLE 21.—ANNUAL STATEMENT, LONDON.

November 1st, 1917—October 31st, 1918.

Women Referred to Positions.

—	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Total
Munitions	5	10	8	21	8	7	10	....	3	9	1	6	88
Factories, other than munitions	85	11	17	39	19	19	23	25	28	29	21	7	323
Offices and Shops	39	15	9	4	4	8	12	10	16	11	17	23	168
Agriculture	....	....	....	....	....	....	25	29	60	23	18	3	158
Household Help	102	32	39	41	36	37	44	38	20	21	24	38	472
Hotels and Restaurants	28	4	13	9	11	16	16	24	21	14	15	5	176
Casuals	81	33	37	29	54	61	67	43	33	34	42	64	578
Totals	340	105	123	143	132	148	197	169	181	141	138	146	1,963

TABLE 22.—LONDON—WOMEN.

1917-1918.

—	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Total
Applications for Work	351	120	149	137	111	97	145	156	145	50	101	*53	1,617
Help Wanted	327	114	132	146	197	174	188	193	152	131	131	131	2,016
*Referred to Positions	340	105	123	143	132	148	197	169	181	141	138	146	1,963

*Including casuals.

OTTAWA

Superintendent, F. J. B. Crean.

Location.—139 Queen Street.

Service.—During the year the building and construction industries have received the greatest number of workers from this office, including labourers, carpenters, steamfitters, bricklayers, glaziers, plasterers and painters to the number of 1,957. Many of these men were sent to Halifax for relief work. When the Halifax disaster occurred in December, the bureau at once took steps to tell the newspapers that it was in a position to supply the necessary men. The disaster occurred on Thursday, and on the following Sunday a telegram was received from the chairman of the newly organized Reconstruction Committee, asking the bureau to organize a party for him and attend to the transportation of it to Halifax. The passenger departments of the different railway companies were immediately communicated with and arrangements made, and on the following Wednesday a party of 300 men was landed in Halifax. This was a small but completely organized party, consisting of superintendents, foremen, carpenters, glaziers, cooks, labourers, riggers, etc. The bureau continued to supply the Reconstruction Committee and other firms who had contracts from them until September 1918, when orders from this source were cancelled as they then had a sufficiently large number of men locally.

Next in importance to the building and construction industries were the manufacturing industries, including labourers, carpenters, nitrators, steamfitters, bricklayers, machine hands, patrol men, electricians, millwrights, boilermakers, tinsmiths, machinists, blacksmiths, punchers, lathe hands, pipe coverers, stack painters, firemen and steamfitters' helpers, making a total of 3,291. Exclusive of labourers, the number of men placed in factories was 1,288.

In the campaign to supply the Province with farm help, this bureau co-operated and was able to supply 799 regular farm hands and boys. This report shows that over 80 per cent. of the applications received were filled. A number, however, were entered at so low a wage that it was impossible to supply men. One of the main difficulties in the work was to induce farmers to apply for help.

Shortage of Labour.—The dearth of workers during the year was felt particularly in the lumbering and shipbuilding industries, and the bureau was not always able to obtain for them the workers asked.

New Industries.—The only new industry served by this office during the year was shipbuilding. Only 48 persons were supplied directly for this work, but, incidentally, employment was found for a number in the building and construction trades on account of the erection of new factories in connection with the shipbuilding yards.

During the year 72 women were placed on farms. This was the first time that this bureau had been instrumental in placing women in agriculture, and the work was done in co-operation with the Toronto bureau.

Co-operation with Other Bureaus.—The work of the bureau along these lines has not been extensive, but during the fruit season workers were transferred to the Toronto and Hamilton offices. Some plasterers were also obtained from Winnipeg, and just at the time of the opening of the Fort William office about thirty men were transferred to that city.

TABLE 23.—ANNUAL STATEMENT, OTTAWA.

November 1st, 1917—October 31st, 1918.

Men Referred to Positions.

—	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Total
Agriculture	3	6	8	12	22	69	35	138	215	178	88	25	799
Building Trades	86	152	144	176	41	227	140	274	235	120	52	10	1,957
Factories	172	250	354	64	43	148	12	45	75	40	75	10	1,288
General Labour	319	600	145	207	457	368	405	388	351	290	268	171	3,969
Miscellaneous	60	162	70	14	27	18	144	16	8	20	19	11	569
Total	640	1170	1021	473	590	830	736	861	884	648	502	227	8,582

In addition to the above, the work of the Ottawa bureau included some attention to the employment of women. During the year 388 women applied for work; 350 orders for women workers were received and 299 women were referred to positions.

FORT WILLIAM

Superintendent, H. Boushear.

Location.—300 Victoria Avenue.

Service.—The largest demands upon this office during the year were for men for general contracting and water transportation. New industries served during the year included a number of shipyards, and a call for women to work in the C.P.R. freight sheds, and for C.P.R. roundhouse wipers was also received. Co-operation, especially with the Port Arthur bureau, was mutually satisfactory and assisted the progress of business. Competition from commercial employment agencies, however, was keen and at times interfered with the free service of the Government.

Shortage of Labour.—All classes of industries suffered from the shortage of men in 1918, particularly general contracting, water transportation and bush work.

Wages.—The union rate of wages was paid to all skilled mechanics in this zone. Some employers paid time and a half and double time for overtime and Sundays; other employers paid straight wages for overtime and Sundays. General labourers received from 35c. to 50c. per hour, and overtime, paid on the same basis as skilled mechanics by the different employers.

Water Transportation:

Cooks	$90 to $100 per month.
Firemen	$75 " $100 "
Oilers	$55 " $65 "
Wheelsmen	$90 "
Deckhands	$55 " $75 "

Bonus given from $10 to $15 per month, according to work.

Bush Work:

Skilled Bushmen	$3.00 per day and board.
Unskilled Bushmen	$2.25 to $2.50 per day and board.
Cordwood Cutters (piecework)	$2.50 to $3 per cord.
Log Cutters (piecework)	8c. to 16c. per log.
Tiemakers (piecework)	16c. per tie.
Cooks	$75 per month and up, according to size of camp.

Miscellaneous:

Teamsters (for the city)	$40 per month and board, or $75 to $100 a month without board.
Hotel Porters	$40 to $45 per month and board.
Bell Boys	$25 " $30 " "
Waitresses	$25 " $35 " "
Chambermaids	$25 " $35 " "

TABLE 24.—ANNUAL STATEMENT, FORT WILLIAM.

April 1st, 1918—October 31st, 1918.

Men Referred to Positions.

——	April	May	June	July	Aug.	Sept.	Oct.	Total
Agriculture	9	2	5	11	7	10	.....	44
Lumber and Bushmen	.....	9	8	26	5	33	12	93
Building Trades	20	11	3	17	5	.....	11	67
Factories	20	9	5	24	14	3	3	78
Transportation	64	29	45	61	52	26	66	343
General Labour	107	65	11	82	80	33	44	422
Miscellaneous	41	31	12	20	18	20	40	182
Casual	1	.....	1	1	.....	4	4	11
Total	262	156	90	242	181	129	180	1,240

TABLE 25.—WOMEN REFERRED TO POSITIONS.

——	April	May	June	July	Aug.	Sept.	Oct.	Total
Total	2	4	2	8	11	1	3	31

PORT ARTHUR

Superintendent, F. Urry.

Location.—193 Park Street.

Service.—The Port Arthur office of the Ontario Government Employment Bureau was opened March 1st, 1918, by the Superintendent of the Ottawa office, and the appointment of Mr. Urry followed shortly. The three industries which have received the largest service from the bureau during the year are shipbuilding, transportation (both by rail and by water) and bush work in lumber, tie, pulp and cordwood camps.

That industrial and commercial interests generally have welcomed and supported the bureau is shown by Table No. 27.

During September and October boys were recruited to work on farms and in gardens at potato picking. In all, 103 boys were placed in 124 positions, some boys working in more than one place. Twenty-three employers were supplied with help. The boys worked from three to twenty days, an average of 10 days each.

In June the office staff assisted with the Canada Registration, and later, in filing information from registration cards for national service, especially on farms.

Shortage of Labour.—There was throughout the year a shortage of skilled men in all trades and of experienced men for bush work. The bureau was at all times in close touch with Fort William office, so as to effect a transfer of men whenever possible. Applications were made at different times to Ottawa, Toronto and Winnipeg, but the bureaus at these places were unable to provide the necessary workers.

Wages.—During the year, rates of wages have changed greatly. When this office was opened in March the wages offered ranged from 30c. an hour for labourers, to 60c. an hour for skilled men. As the demand for men became more insistent, the demand for higher wages was made, and when the men engaged in shipbuilding organized, negotiations were begun and what became practically a standard rate was established. These rates are quoted in Table No. 26. Following the adoption of this schedule by leading industries, carpenters generally asked for a minimum of 70 cents an hour and a nine hour day. No agreement was reached until the men went on strike, the final settlement being 65 cents an hour minimum and a nine hour day.

A strike of elevator workers also occurred during the year, the men asking 50c. an hour minimum and recognition of the union. The Board of Conciliation was in session at the close of the fiscal year.

A strike of the coal dock men, who asked for a minimum of 45 cents an hour as against 40 cents paid, was settled by the intervention of the Mayor of Fort William, the local member of the Legislature and the Minister of Labour.

In bush work the prevailing rates were $60 to $75 per month with board, in cord, pulp and lumber camps. For piecework, which is not uncommon, the men got $3 a cord for 4′0″ cordwood; $5 a cord for 8′0″ pulpwood or a double cord, and 15c. and 16c. a tie in the tie camps. As a rule, pieceworkers paid their board at $1 a day, or perhaps $6 a week. Camp cooks received $80 to $100 per month, teamsters $75 to $90 per month.

PORT ARTHUR SHIPBUILDING COMPANY.

TABLE 26.—MINIMUM HOURLY RATES, EFFECTIVE JUNE 3RD, 1918.

	Rate per hour.
Machinists	67½ cents
Machinists' specialists	55
Machinists' helpers	42½
Molders	65
Molders' specialists	50
Molders' helpers	42½
Patternmakers	70
Patternmakers' helpers	42½
Blacksmiths—heavy fires	75
" centre fires	70
" ordinary fires	65
" hammer men	50
Blacksmiths' helpers	45
Pipefitters	67½
" specialists	55
" helpers	42½
Painters—first-class	55
Painters—Brush hands	47½
Joiners	67½
Carpenters	65
Wood caulkers	65
Scaffold builders	55
Electricians—first-class	67½
" power house operators	65
" specialists	55
" drillers	50
" Gantry cranemen	52½
" cranemen	50
" helpers	42½
Coppersmiths	70
Boilershop flanger	70
Boilershop layerout	70
Boilermakers	67½
" specialists	55
" helpers	42½
" slabman	70
" anglesmith	67½
Shiplifter—first-class	67½
" second-class	55
" improver	47½
Linermen	45
Linerforger	45
Riveters—first-class	67½
Riveters—second-class	55
Holders-on—first-class	50
Holders-on—second class	45
Chipper and caulker—first-class	67½
Chipper and caulker—second-class	50
Sheet metal workers—first-class	67½
Sheet metal workers—second-class	60
Welders and burners	67½
Burners	50
Riggers—first-class	60
Riggers—second-class	55
Heavy lifting gang	45
Hoisting engineers	55
Rivet testers	60
Punch and shearmen	50
Palnermen	50
Countersinkers	50
Rollmen	50
Flangers	50
Drill pressmen	50

	Rate per hour.
Hosemen	50
Air linemen	45
Packers	47½
Drillers and tappers	50
Tool checkers	45
Reamers	45
Bolters	42½
Helpers—punch shed	42½
" slab	42½
" heaters	30-40
Passer boys	20-30
Marker boys	20-30
Labourers	40
Apprentices .....20c. per hour, with increase of 2½c. per hour each 6 months.	

TABLE 27.—ANNUAL STATEMENT, PORT ARTHUR.

March 1st, 1918—October 31st, 1918.

Men Referred to Positions.

——	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Total
Agriculture	.....	5	11	2	2	2	2	.....	24
Lumber and Bushmen	30	36	185	18	86	8	20	183	566
Building Trades	6	14	27	2	10	15	54	88	216
Factories	10	8	29	128	195	101	256	234	961
Transportation	4	53	43	4	20	34	74	107	339
Miscellaneous	17	19	16	10	13	16	17	1	109
Casuals	.....	26	.....	.....	.....	15	9	9	59
Total	67	161	311	164	326	191	432	622	2,274

BRANTFORD

Superintendent, T. Y. Thompson.

Location.—136 Dalhousie Street.

Service.—During the past year the work of the Brantford Employment Bureau has become more widely known to manufacturers, farmers and the public in general. Several firms which had not previously called upon the bureau applied to it for help during the year. Among these were a motor truck company, which employed both men and women; two steel companies, one of which asked for men and the other for women, and a firm manufacturing agricultural implements. The supplying of workers for the steel industries occupied much of the energy of the director of the bureau, which was successful in placing 235 workers in steel and 79 in munition plants during the year.

In co-operation with other bureaus, or at the direct call of employers, workers were transferred to Hamilton, Simcoe, Niagara District, Longford and the various lumber camps.

Wages.—The following are the wages paid in some of the industries in which the bureau placed workers:—

FARM WORK.

Married men going on farms by year, with privileges	$500 to $600.
Single men going on farms by year	$375 to $500.
Single men going on farms by month	$45 to $60.

FACTORY AND OTHER WORK FOR MEN.

Munition workers	$5.00 per day.
Labourers in factories	$3.00 to $4.50 per day.
Skilled tradesmen	$5.00 to $7.00 per day.

WOMEN AND GIRLS.

Women and girls on farms	$5.00 per week and board.
Women and girls in munition plants	$4.00 per day and up, on piecework.
Women and girls in factories	$2.00 per day to start.

TABLE 28.—ANNUAL STATEMENT, BRANTFORD.

November 1st, 1917—October 31st, 1918.

	Applications for Work		Help Wanted		Referred to Positions	
	Men	Women	Men	Women	Men	Women
November	91	7	115	10	91	7
December	74	13	87	13	74	13
January	71	16	89	27	71	16
February	89	12	96	32	89	12
March	97	22	119	31	97	22
April	153	65	173	76	153	65
May	55	10	72	15	55	10
June	70	26	99	42	70	26
July	186	59	226	79	186	59
August	132	50	167	50	132	50
September	101	43	181	53	101	43
October	154	43	216	71	154	43
Total	1,273	366	1,640	499	1,273	366

KINGSTON

Location.—22 Market Street.

Service.—This branch of the Ontario Government Employment Bureau was open only part of the year and the work was handled largely by the district agricultural representative. Reports as to work accomplished show 191 applications for work; 159 help wanted; 108 referred to positions. Plans for the year 1919 include an extension of this service with the appointment of a permanent superintendent.

SUB-ZONE BUREAUS

In addition to the zone and sub-zone bureaus already recorded, the Ontario Government during 1918 continued part-time employment service in Walkerville and St. Thomas.

Name of Bureau.	Address.	Name of Superintendent.
Walkerville	119 Argyle Road	Joseph Winterburn.
St. Thomas	53 Gladstone Ave.	W. J. Peacock.

TABLE 29.—ANNUAL STATEMENT.

November 1st, 1917—October 31st, 1918.

Sub-Zone Bureaus	Registrations		Help Wanted		Referred to Positions	
	M	F	M	F	M	F
Walkerville	489	16	378	12	307	10
St. Thomas	465	99	1,068	300	392	147
Kitchener	336	42	416	168	296	37
Totals	1,290	157	1,862	480	995	194

Problems in these centres were similar to those in larger districts, viz.:—shortage of men in the earlier part of the year, with difficulties in readjustment at the close of the war. The volume of business in St. Thomas was more than 50 per cent. greater than the preceding year.

FARM LABOUR—MEN

Ontario's Policy in Handling the Farm Labour Situation.

The Ontario Government's System of Public Employment Bureaus constitutes the logical medium through which to recruit the supply of farm labour for the Province. Through its main offices at Toronto, Ottawa, Hamilton and London, the Employment Bureau System in 1918 was in close touch with the districts which provided the largest sources of labour for farm work, as well as for all other occupations. The bureaus located at Brantford, Walkerville, St. Thomas, Fort William, Port Arthur and Kingston also served as channels through which the available labour of the smaller communities could be poured into the rural districts as the need arose. Forty-five offices of the Provincial Agricultural representatives constituted distributing centres for the labour recruited through the zone and sub-zone offices, and also served as local farm labour employment offices for the recruiting and distributing of farm labour from the small towns to the rural districts.

Various agencies constantly brought to the attention of the public the need for assistance on farms. A large portion of the advertising done by the Canada Food Board, the Organization of Resources Committee and other bodies was directed towards securing a sufficient supply of labour to ensure the maximum of production. The Employment Bureaus also advertised for workers, as occasion demanded. The information obtained from the registration cards filled in last June was also instrumental in recruiting a large number of workers for the farms, who would probably not have been reached in any other way.

As substitution is the secret of success in solving the labour problem of the factory, so it proved an aid to the solution of the labour problem on the farm. The employment of boys and girls brought results of undoubted value, both to the farmers and to the boys and girls. The appeal of the Canada Food Board and the campaign carried on by the Resources Committee and the Trades and Labour Branch brought forth a ready response from the young people of the Province, with the result that fully 10,000 of them were engaged in every form of food production during the past Summer. The cultivation of sugar beets, the harvesting of the flax crop and the picking and packing of the fruit crop were all materially assisted by the efforts of the boys and girls, many of whom had had no previous farm experience. The work of the boys was recognized by a National S.O.S. badge issued by the Canada Food Board, while the work of the girls was marked by a Farm Service Corps pin, issued by the Ontario Government through the Trades and Labour Branch.

A total of approximately 10,000 persons were placed on farms through the influence of the Ontario Government Employment Bureaus, during the spring and summer of 1918. Of these 5,600 were men, 2,000 boys, and 2,400 women. Large numbers of retired farmers and farmers' sons who had come to the city to accept positions in factories, offices, etc., were induced to return temporarily, at least, to the farms. In view of the supreme importance of food production, the main emphasis of the work of the Employment Bureaus was laid on the farm departments, although, as the accompanying reports show, positions in other lines were not overlooked.

One of the problems in connection with supplying farm labour has been the difficulty experienced in obtaining the applications from the farmers; this difficulty

is rapidly being overcome by educating the farmers to a realization of the usefulness of the Employment Bureau in securing suitable farm help; at the same time, there are undoubtedly many farmers who could obtain help, and who have not done so, if they would make application to one of the Employment Bureaus, or to their Agricultural Representative, as far in advance of the time when help will be required as possible.

Free transportation to farms in the Province of Ontario has undoubtedly given a great impetus to the work of supplying the farmer with help. The Directors of the Employment Bureaus, the Agricultural Representatives and other authorized agents of the Employment Bureau System situated in other parts of the Province have made extensive use of the transportation order books, which permit them to issue transportation to bona fide farm workers travelling distances up to 300 miles.

The Work of the Flax-Pulling Machine Inspected by Government Officials.

TABLE 30.—FARM HELP CAMPAIGN.

Free Transportation.

Number Transported	Total Fares	Average per Capita	Mileage	Number	Percentage
4,121	$5,209.65	$1.2641	10–20	684	16.50
			30–100	2,485	60.50
			100–150	416	10.00
			150–200	190	4.75
			200–250	101	2.50
			250 and over	165	3.75
			Refunds	80	2.00
				4,121	100.

The plans of the Branch for 1919 do not involve any radical departures from the main policies followed during 1917 and 1918. With the end of the war, more men will doubtless be available for food production and the demand upon women and boys will be correspondingly less. The Ontario Government will co-operate with the various Repatriation Committees in placing men in profitable and congenial employment.

Location of Farm Bureaus.

The Ontario Government Employment Bureaus handling farm labour are located as follows:

Toronto—45 King St. West, Superintendent, J. A. Miller.
Hamilton—85 James St. North, Superintendent, T. H. Wills.
London—108 Dundas St., Superintendent, H. Tutt.
Ottawa—139 Queen St., Superintendent, F. Crean.
Port Arthur—193 Park St., Superintendent, F. Urry.
Fort William—300 Victoria St., Superintendent, H. Boushear.
Brantford—136 Dalhousie St., Superintendent, T. Thomson.
Walkerville—119 Argyle Road, Superintendent, J. Winterburn.
St. Thomas—53 Gladstone Ave., Superintendent, W. J. Peacock.
Kingston—22 Market St., Superintendent, A. C. Trousdale.

Through these offices, the system of service through zone bureaus and sub-zone bureaus, as established in 1917, was further developed in 1918, and as the public became better acquainted with the services at their command, they more and more took advantage of the opportunity offered them by the Government for bringing together the farmer and the best help available for his farm.

Farm Labour Bureaus were carried on as part of the Ontario Government System in the following branches of the Department of Agriculture, and the representatives of this department were immediately active in securing orders for men, and registering and placing applicants for farm work.

Toronto Zone.

County.	Name.	Address.
Peel	J. W. Stark	Brampton.
York	J. C. Steckley	Newmarket.
Ontario	R. M. Tipper	Whitby.
Simcoe	A. Hutchinson	Collingwood.
Muskoka and Parry Sound	F. C. Paterson	Huntsville.
Durham	G. A. Williams	Port Hope.
Victoria	A. A. Knight	Lindsay.
Northumberland	H. Sirett	Brighton.
Haliburton		
Bruce	N. C. McKay	Walkerton.
Grey	H. C. Duff	Markdale.
Dufferin	H. A. Dorrance	Orangeville.
Halton	W. F. Strong	Burlington.
Prince Edward	A. P. McVannel	Picton.
Wellington	R. H. Clemens	Arthur.

Ottawa Zone.

Carlton	W. D. Jackson	Carp.
Russell		
Prescott		
Glengarry	D. E. McRae	Alexandria.
Dundas	E. P. Bradt	Morrisburg.
Renfrew	M. H. Winter	Renfrew.
Lanark	F. Forsyth	Perth.
Grenville	W. M. Croskery	Kemptville.
Frontenac	A. W. Sirett	Kingston.
Lennox and Addington	G. B. Curran	Napanee.
Hastings	I. M. McIntosh	Stirling.
Leeds	W. H. Smith	Athens.
Timiskaming	A. D. McIntosh	New Liskeard.

London Zone.

County.	Name.	Address.
Middlesex	F. A. Finn	Box 663, London.
Lambton	W. P. McDonald	Petrolia.
Kent	J. L. Dougherty	Chatham.
Essex	Y. W. Noble	Essex.
Huron	S. B. Strothers	Clinton.
Oxford	G. R. Green	Woodstock.
Perth		
Elgin	C. W. Buchanan	Dutton.

Hamilton Zone.

Waterloo	J. S. Knapp	Galt.
Wentworth	W. G. Marritt	Hamilton.
Lincoln	David Elliott	St. Catharines.
Welland	E. K. Hampson	Welland.
Brant	R. Schuyler	Paris.
Norfolk	E. F. Neff	Simcoe.
Haldimand	G. L. Woltz	Cayuga.

Port Arthur Zone.

Algoma	J. W. Wadsworth	Sault Ste. Marie.
Sudbury	D. J. Robicheau	Sudbury.
Manitoulin		
Port Arthur	L. M. Davis	Port Arthur.

Fort William Zone.

Kenora	E. E. Reilley	Kenora.
Rainy River	R. E. Cumming	Emo.
Thunder Bay		
Fort William	C. W. Collins	Fort William.

Prospect and Retrospect.

It is gratifying in the second year of the history of the Bureau to know that an ever increasing number of employers of farm labour are making use of the Government Employment Service. The advertising campaign through the Public Schools, agricultural papers, etc., last spring brought the bureau to the attention of nearly all farmers, a distinct advance over the previous year. A much larger percentage now state the wages they are willing to pay.

The bureaus report very little difficulty between workers and farmers over wages or other problems. Very few complaints were registered and in only one or two cases was there positive dissatisfaction. Many short term men on their return to the city have called to thank the office staff and to express their appreciation of the treatment received.

As farmers are placing special emphasis upon dairying and the production of beef and pork, an increasing number are now asking for men by the year. This means that the activity of the farm section of the Government Bureaus will, of necessity, be speeded up in order to meet these requirements. The co-operation of the District Agricultural Representatives has become of very great service, and will be relied upon more and more as time goes by.

TABLE 31.—ANNUAL STATEMENT—FARM LABOUR—MEN.

November 1st, 1917—October 31st, 1918.

Zone Bureaus	Applications for Work	Help Wanted	Referred to Positions
Toronto	5,042	3,750	3,628
Ottawa	1,058	1,049	799
Hamilton	594	792	555
London	993	989	646
Pt. Arthur and Ft. William	105	77	68
Total	7,792	6,657	5,696

This report includes only the work of the zone bureaus. The numbers would be considerably increased by including the sub-zone bureaus and the numbers of men who took up farm work through government influence but according to private arrangement.

BOYS' FARM CAMPS—SOLDIERS OF THE SOIL

In the month of March, 1918, the Dominion Sugar Company at Chatham became interested in the possibilities of utilizing boy labour to provide the assistance necessary to the cultivating of the sugar beet crop. In previous years this work had been largely done by Belgians, but this class of labour has become almost impossible to secure, since the war caused a great many Belgians to return to their native land as soldiers.

Sugar beets are grown under an arrangement which differs slightly from that in vogue in connection with the majority of farm crops, in that the Sugar Company holds itself responsible for providing the labour necessary to cultivate the crop. The farmer is then charged a definite amount per acre for the labour done on whatever portion of his farm he has planted with beets. This being the case, it was

Some Farm Recruits from the Public Schools.

possible for arrangements to be made whereby groups of boys could be housed in camps scattered throughout the district and moved from place to place by means of motor cars as the occasion arose.

Through the medium of Employment Bureaus a sufficient number of boys were recruited to make up six camps. One group consisted of boys from Chatham, the majority of whom had had previous experience in beet work. Another camp consisted of fifty Hebrew boys, who were brought from Montreal. Two other camps consisted of boys from the Mimico Industrial School and St. John's Industrial School, while the fifth camp included the remainder of the boys who were recruited for this work, with the exception of a group of Hebrew boys from Toronto, who did not remain throughout the season.

The Young Men's Christian Association undertook the supervision of these camps, but later the Dominion Sugar Company took over the entire management of

Saturday Night—Before Leaving the Fields.

Sunday Morning—In Camp.

the camps themselves. Through the generosity of the Y.M.C.A. the boys were provided with baseballs and other sporting equipment for use during spare time.

The boys' earnings ranged from $6.00 a week—the minimum guarantee—to $21.00, which was the splendid figure reached by one of the boys in the Victoria Industrial School group. The average earnings ranged from $9.00 to $12.00 a week, out of which the boys had to pay their board.

The experiment made in placing boys from the Victoria and St. John's Industrial Schools proved a splendid success both in the sugar-beet fields around Chatham and the flax fields near Goderich and Clinton, where they were later engaged in pulling and spreading flax. Their earnings were the highest earned by any of the boys, and the results from the standpoint of manhood were even more satisfactory than of money.

Of the 47 boys from the two Industrial Schools engaged in the work, 39 earned their parole, the large proportion of whom are making good. Both schools made the granting of parole to these boys an occasion of special importance. Public presentations were held at which the boys were granted special certificates in recognition of their splendid response to the Empire's call for greater food production. The presence of Sir William and Lady Hearst not only showed their personal interest, but also the importance which the Prime Minister placed upon the patriotic work of the boys in helping to make victory possible.

NINTH ANNUAL REPORT OF THE BOARD OF STATIONARY AND HOISTING ENGINEERS

To the Superintendent of the Trades and Labour Branch.

SIR,—I have the honour to submit herewith, in accordance with the Act respecting Stationary Engineers, the following Report for the year ending October 31st, 1918.

1. The number of certificates granted:—

Number of stationary engineers' certificates granted for the year 1918		9,153
Candidates who qualified by examination	856	
" " " $5 renewal fee	84	
" " " $1 renewal fee	8,188	
" " " $1 (fees entered in 1917 deposits)	6	
" " " $1 fee deposited in the year 1915)	1	
" " " $1 provisional certificate	18	
	9,153	
Number of hoisting engineers' certificates granted for the year 1918		1,267
Candidates who qualified by examination	332	
" " " $5 renewal fee	16	
" " " $1 renewal fee	914	
" " " $1 provisional certificate	5	
	1,267	

2. The number of applications for certificates refused, and the causes for refusal:—

During the year 1918, there were 75 applications for stationary engineers' certificates and 7 applications for hoisting engineers' certificates refused, the causes for refusal being low percentage in examination.

3. The number of certificates revoked, cancelled or suspended, and the causes for same:—

During the year 1918, there were no stationary engineers' certificates nor hoisting engineers' certificates revoked, cancelled or suspended.

4. The number of candidates examined by the Board of Examiners:—

During the year 1918, there were 1,420 candidates examined by the Board.

5. The amount of fees received from candidates or holders of certificates:—

Amount of stationary engineers' fees deposited from November 1st, 1917, to October 31st, 1918:

November 27, 1917	$565 06
December 5, "	1,047 00
" 8, "	1,023 02
" 13, "	1,375 00
" 19, "	1,471 10
" 22, "	892 00
January 19, 1918	1,763 26
February 14, "	957 36
April 17, "	904 01
July 6, "	939 00
October 31, "	991 00
	$11,927 81

1,076	examination fees at $3	$3,228 00
87	examination fees at $1 (supplementary)	87 00
18	fees at $1 (duplicate certificate)	18 00
18	fees at $1 (provisional certificate)	18 00
82	renewal fees at $5	410 00
	Balance of renewal fees (F. J. Brisbois)	4 00
	Balance of renewal fees (Chas. Smith)	4 00
	Balance of renewal fees (James Gourlay)	4 00
1,188	renewal fees at $1	8,188 00
12	renewal fees at $1 (second fee, credited for 1919)	12 00
1	renewal fee at $1 (extra fee, credited 1920)	1 00
3	renewal fees at $1 (certificates not renewed as they are supplementary)	3 00
1	renewal fee at $1 (certificate not renewed, as the applicant holds only provisional certificate)	1 00
2	renewal fees at $1 (part of $5 renewal fees holding for balance)	2 00
	Surplus cash	0 81
		$11,980 81

Less the following fees transferred to Hoisting Cash Book, 1918:

15	examination fees at $3	$45 00	
1	renewal fee at $5	5 00	
3	renewal fees at $1	3 00	
		$53 00	
			$11,927 81

Amount of Hoisting Engineers' fees deposited from November 1st, 1917, to October 31st, 1918:

November	27, 1917	$367 25	
December	5, "	357 25	
"	22 "	182 00	
January	19, 1918	155 00	
February	14, "	183 15	
April	17, "	328 25	
July	6, "	239 15	
October	31, "	251 00	
			$2,063 05

365	examination fees at $3	$1,095 00
18	examination fees at $1 (supplementary)	18 00
5	fees at $1 (duplicate certificate)	5 00
5	fees at $1 (provisional certificate)	5 00
919	renewal fees at $1	919 00
2	renewal fees at $1 (credited for 1919 certificates)	2 00
16	renewal fees at $5	80 00
	Surplus cash	1 05
		$2,125 05

Less the following transfers:

17	examination fees at $3, transferred from the Stationary Cash Book previously deposited to dates of transfer	$51 00	
5	renewal fees at $1	5 00	
2	examination fees at $3, transferred from Hoisting and Stationary Engineers' Cash Book	6 00	
		62 00	
			$2,063 05

Total amount of cash deposited as follows:

Hoisting engineers' fees	$2,063 05	
Stationary engineers' fees	11,927 81	
		$13,990 86

I have the honour to be, Sir,

Your obedient servant,

W. C. McGhie, *Chairman of Board.*

FACTORY INSPECTORS

OFFICIAL LIST, 1918

CHIEF INSPECTOR: JAMES T. BURKE, PARLIAMENT BUILDINGS, TORONTO.

INSPECTORS:

W. T. E. BRENNAGH, 156 Winnipeg Ave., Port Arthur: Mr. Brennagh's district is Sudbury, C.P.R. and C.N.R. lines, south to Parry Sound (exclusive); east to Algonquin Park; north from Scotia Junction to North Bay; Cobalt district to Quebec boundary lines; north to Manitoba boundary line.

H. A. CLARK, 242 Dovercourt Rd., Toronto: Mr. Clark's district is Toronto, east of York Street, University Avenue and Avenue Road; to Don River; north to Jackson's Point (Metropolitan); south including islands in the Bay.

A. W. HOLMES, 39 Lakeview Avenue, Toronto: Mr. Holmes' district is Toronto east and south of Lansdowne and Bloor Streets; west to Burlington; north to city limits; east, including York Street, University Avenue, and Avenue Road; south to the Bay.

R. HUNGERFORD, 434 Shaw Street, Toronto: Mr. Hungerford's district is Toronto west of, but including Lansdowne Avenue and Bloor Street, also West Toronto, Lambton, Milton, Branchton, but excluding Drumbo, Stratford, Gowanstown and Fordwich, but shall include north to Southampton, Bruce Peninsula, Owen Sound Collingwood, Meaford, Penetanguishene and both C.P.R. and C.N.R. lines to Parry Sound (inclusive); Orillia, Elmvale to Toronto, G.T.R. points being included.

F. KELLOND, 157 Wellington Street South, Hamilton: Mr. Kellond's district is G.T.R. main line west to London [(exclusive): east to Niagara Falls, south and east of London] and Port Stanley lines; north to C.P.R. and G.T.R. to Drumbo, Crumlin and Tavistock (Milton, Branchton and Ingersoll Junction being excluded).

S. J. MALLION, 74 St. Vincent Street, Stratford: Mr. Mallion's district is Fordwich, Gowanstown, Stratford, St. Mary's, London, St. Thomas and Port Stanley; south and west to border line, including Ingersoll Junction to the C.P.R. and north, including Teeswater, Kincardine, Goderich, etc.

H. J. TUTT, 13 Enderby Road, Toronto (east): Mr. Tutt's district is, Don River, east including Kingston, K. & P. Railway; north to Sharbot Lake and Scotia Junction (exclusive), west to Coldwater Junction, but shall not include Orillia, Elmvale, Aurora or Downsview.

MISS M. CARLYLE, 68 Grace Street, Toronto: City of Toronto, west of Yonge Street, north to city limits; south to Niagara Falls; west to Windsor, but shall exclude West Toronto, Brampton, Georgetown, Guelph, Kitchener, Stratford, St. Mary's, Lucan Crossing and Sarnia.

MRS. A. BROWN-REDDICK, 437 Crawford Street, Toronto: City of Toronto, east of Yonge Street to Quebec boundary line; to Ottawa, Mattawa, North Bay, Sudbury, Owen Sound, Wiarton, Southampton, Teeswater, Kincardine, Goderich, Sarnia, north to city limits to include West Toronto.

THIRTY-FIRST ANNUAL REPORT

OF THE

Factory Inspection Branch

DEPARTMENT OF PUBLIC WORKS

PROVINCE OF ONTARIO

1918

To the Superintendent of Trades and Labour.

SIR,—I have the honour to submit to you as follows, the Thirty-first Annual Report of the work of the Factory Inspection Department of the Province of Ontario for the fiscal year ending October 31st, 1918.

JAMES T. BURKE, *Chief Factory Inspector.*

It is difficult in a report of this kind to give an entire recapitulation of the work accomplished during the year, much of it being incidental to inspection, and cannot very well be recorded. Reports, however, indicate that in general, industrial establishments inspected are in good condition and any defects observed have been remedied at the direction of the Inspectors with very little friction.

Some time has been devoted to questions affecting conditions in printing establishments such as lighting and sanitation, and the effects of bronze powder on the employees.

Our chemist also made a tour of inspection to some of the cities and towns in the Province for the purpose of investigating questions of hygiene and to take tests of air in certain industries.

Plans were formulated and completed during the year to demonstrate to workmen by means of lantern slides causes of accidents or what may be termed dangerous practices; these were used with good effect to illustrate a lecture on accident prevention given at London, Ontario.

A number of amendments and some additions were made at the last session of the Ontario Legislature to the Factories, Shops and Office Buildings Act. Section 35, regulating the hours of employment for females in canning factories, was repealed, and Section 25, which permitted the employment of children in the work of desiccating fruit and vegetables, was also repealed, thus eliminating entirely the legal employment of child labour in any factory whatsoever.

Provision has been made for the assistance of constables if the Factory Inspector has reason to believe that he may be "resisted, obstructed or hindered" in the discharge of his duties.

Plans of buildings to be erected or altered, now submitted to the Department for examination and approval, must hereafter be submitted in duplicate, for file in the Trades and Labour Branch.

Notices of the Act are to be affixed in factories, shops, bakeshops or office buildings by the Inspector, and shall be kept so affixed by the employer, under penalty provided in Sub-section (2), Section 23 of the Act.

Provision is also made for the proper lighting, by the employer or owner, of all factories, shops or office buildings, passages and conveniences, under his control.

Eating and dressing rooms must be provided in a factory or shop where not less than 35 females are employed, and a matron or attendant is to have charge of same.

The Boiler Act has been amended and some additions made. Minimum penalties for contraventions of the Act have been fixed, and provision made for the paying over of same.

Additions, too, were made to Schedule "A" setting forth the class of factory under the Act.

The Chief Inspector, Mr. J. T. Burke, attended the Typographical Union Conference held at Brantford this year and the New York State Congress at Syracuse, N.Y. At both these meeting discussions pertaining to the various matters which create problems in the industrial world took place, which were of particular interest to this department.

In the course of the year 10,815 inspections were made in 407 cities, towns and villages.

1st inspections	7,165
2nd inspections or re-visits	3,650
Total	10,815

Employees in the above industries and mercantile establishments numbered 272,917; males 205,217, females 67,700. Out of this number 185 were illegally employed, being under 14 years of age.

Five thousand one hundred and forty-one orders were issued covering the requirements of the Factories, Shops and Office Buildings Act, 60 per cent. of which related to the safety of employees.

The horse power of some 3,991 boilers amounted to 384,069; electricity 249,858, gas 8,606, water 77,272.

Overtime Permits.

Applications for overtime permits again exceeded the previous year's. The increase was chiefly in regular permits under Section 34, required through the exigencies of trade. There was also an increase in permits under Section 70, War Measures Permit for Bakeshops, but a decrease in special permits under Section 32. Permission was granted for overtime as follows:—

Under Sec. 34, regular	207
Under Sec. 32, special (munitions)	33
Under Sec. 70, bakeshops, to set sponge	9
Under Sec. 70, bakeshops, Sunday work, war measures	58
Under Sec. 70, bakeshops, duration of war	6
Under Sec. 70, bakeshops, on account of holidays coming on Mondays	41
Under Sec. 69, bakeshops, to permit the sale of bread in Ontario from Quebec Province and the United States	5
Total	369

Prosecutions.

Thirty-eight prosecutions were instituted during the year for various breaches of the Factories, Shops and Office Buildings Act. Twenty-five were for violation of Sec. 25 which relates to the employment of children under 14 years of age, six for failure to observe the regulation regarding Sunday work in bakeshops. Fines amounting in all to about $450 were imposed.

A. E. James of Brantford, was prosecuted as owner of a building, for failure to provide as recommended proper conveniences. After some delay the work was finally completed, and no fine was imposed, but the decision was that the charge was proven.

Hilton Bros., the Coleman Bakery, James Dempster, Sanderowitz, Gold & Perl and H. Gulu, Toronto bakers, charged with violating the regulation regarding Sunday work, were convicted and fined. H. Gulu pleaded guilty and was fined $5. Two of the others were fined $10, three convicted but not fined.

James H. Holmes, Woodstock, was fined $5 and costs for non-compliance with Sec. 41. An attempt was made to evade our order by providing what was really a makeshift. This was unsatisfactory to both the Inspector and M. H. O.

S. H. Borbridge, Ottawa, for employing child labour was fined $20.

Sing Lee, Ottawa, for failure to provide a room separate from laundry in which to prepare meals, and for unsanitary conditions of premises, was fined $20.

George Mason, and Harry Buccino, a sub-contractor, Ottawa, were each fined $10 for employing child labour.

The Slingsby Mfg. Co., Brantford, prosecuted for employing child labour, pleaded guilty and was fined $10.

The Brantford Cordage Co., Brantford, was charged with child labour, but the case was dismissed as there were not sufficient grounds for an appeal, the child being of Indian birth and not registered.

A. S. Taylor, Galt, for not complying with recommendations to provide proper conveniences in the store of his tenant, was fined $50.

The Renfrew Machinery Co., Renfrew, was charged with violation of Sec. 32, and employing females at night without a permit and fined $10 on each charge.

The Tuckett Cigar Co., Hamilton, for violation of the child labour law and for employing females after 6.30 p.m. was fined $10 on each charge.

Coppley, Noyes & Randall, Hamilton, was fined $10 for employment of child labour.

Leaside Munition Co., Toronto, was convicted of employing child labour and fined $10. The father of the boy was also fined $10 for permitting him to work under the legal age.

Information was laid against the Dominion Linens, Guelph, for child labour. The fine was $1.

Gunns Ltd., Toronto, was also charged with violating Sec. 25 and fined $50.

The McKinnon Columbus Chain Co. and the Kinleith Paper Co. of St. Catharines, and the Independent Rubber Co., Merritton, were prosecuted for violation of Sec. 25 and each fined $20.

The National Mfg. Co., Brockville, and a sub-contractor, were prosecuted for child labour. The fine imposed on the company was $10, on the sub-contractor $2.50.

The Steel Co. of Canada, Swansea, was fined $25 for employing child labour. The father of the child was also indicted.

The Proctor Gamble Co., Hamilton, was fined $60 for employing children under 14 years of age.

Connor & Sons, Ottawa, also employing child labour was fined $10.

The Polson Iron Co., Toronto, was fined $30 for employing child labour. The father was also prosecuted but allowed to go.

The City of Toronto was prosecuted for failure to comply with recommendation to provide a fire-escape on the City Hall. The city was found guilty of a breach of the law and was remanded until called.

The Beck Box Co., Toronto, was prosecuted for employment of child labour and was fined $10.

J. Clark, Parry Sound, prosecuted for failure to comply with recommendations to provide proper conveniences and washrooms for women employees, was fined $12.

Information was laid against D. S. Perrin & Co., London, for working females in excess of prescribed hours. Fine was $10.

The Downer Pattern Co., Toronto, was charged with failure to comply with recommendation to furnish guards. The case was dismissed.

Explosions.

While no reports were received this year of boiler explosions, five fatalities were caused by various other explosions. Efforts made to ascertain the cause were successful in most cases, although in one or two it was difficult to assign a cause.

Investigation of the explosion in a tar and chemical plant of an ammonia receiving tank which caused the death of three persons, disclosed no apparent reason and the cause remains unknown. Apart from the fatalities little damage was done, and other tanks and machinery were untouched.

A water seal on a gas producer in another plant blew out, causing a pocket of gas under the floor of the producer to explode, which resulted in injury to five employees. At the time of the investigation it was not known what caused the blow-out.

Another explosion responsible for the death of one man and injury to another took place in a cavity in a casting in which a crack was being welded. The apparent cause was that when the cover, in which there were several cavities, was heated, a high pressure of gas formed in two of them, bursting the metal.

A reported explosion in a chemical plant on investigation proved to be really a fuse plug given way in a steel cylinder containing chlorine gas, which had become overheated. No serious injury resulted, the firemen who extinguished the blaze thus caused being only overcome by escaping gas for a few moments.

Fire in another chemical plant caused by escaping acid spreading to near-by woodwork caused another explosion. Efforts made by the employees to extinguish the flames with the fire-fighting appliances at hand were futile, but gave employees in the different plants time to get to a place of safety before the explosion occurred.

A fatality in a plant manufacturing explosives was due to the explosion of a pipe which had formerly been used to convey pulped cotton, in which some particles apparently remained, and detonated by a spark caused by hammering to separate a flange coupling.

Fire Protection.

Orders for the erection of fire-escapes were not numerous this year. There are, however, always a number in course of erection and these make more demands on the Inspectors' time than perhaps other requirements. The remodelling of buildings sometimes makes necessary the change in fire exits, and changes frequently have also to be made in old fire escapes in order that they may conform with Government specifications. It is necessary, too, to see that the old ones are repaired and painted and generally brought up to the required standard, all of which necessitates several visits and conferences with owners and their officials.

Safety.

About 60 per cent. of the notices served on employers during the year were in connection with guarding machinery or other safety measures. In many otherwise well ordered factories it is frequently found that although guards are provided at one time or another they are not always maintained, and through the removal of machines to more suitable positions, or the installation of new machinery, these precautions are sometimes neglected. Other recommendations urged were to keep the premises in general clear of obstruction and all like causes of accidents, as many occur each year from men falling over loose material lying around or off unrailed platforms. Special attention was also drawn to the danger from insufficiently protected electric wires; this was evidenced in the number of fatalities recorded this year due to electricity.

Notwithstanding irregularities noted, much has been done to safeguard employees during the year, and many plants are reported to be in splendid condition, thoroughly well equipped with all measures for the prevention of accidents.

Sanitation.

Reports show a certain neglect in regard to sanitary arrangements and it is apparent that in few places is a system of general cleanliness kept up. Lavatory accommodation is frequently unsatisfactory, badly lighted and badly kept. The only way to keep up a proper standard is to have a definite arrangement with some one person for that purpose. It was necessary to refer two cases to the courts for settlement, the owners having failed to comply with recommendations to install proper conveniences. Many excuses were offered and it was not until information was laid against them under Sec. 41 that satisfactory conveniences were secured.

Lack of washing facilities and towels were some other matters that required attention.

Child Labour.

There is really no significant amount of child labour in this province and nothing whatever approaching a "problem." This phase of the Act is well looked after and comparatively little illegal employment of children has been reported this year. It is true that there has been some violation of Sec. 25 and legal proceedings were taken against a number of firms. Among those prosecuted were two sub-contractors, they being liable under the Act as well as the company. Notices were also served, not only regarding the non-employment of children but that children were not to be allowed on factory premises during factory hours.

In some of the canning factories National Service Workers were employed in addition to the regular help, and in one plant all were National Service Workers.

Bakeshops.

Reports from all districts show that the bakeshops inspected this year are, with few exceptions, in a very satisfactory condition, most of them being clean and up-to-date. Several of those visited were underground or basement bakeshops, but were well kept and very fair for that type of shop. Such orders as were issued regarding lime washing, repairs or painting were found on inspection to be complied with, and a general improvement noted. The chief contravention of the law was in regard to Sunday work, and legal proceedings were taken in several cases.

Chinese Laundries.

Irregularities most in evidence in these laundries appear to be lack of sleeping and eating apartments separate from work-rooms. The difficulty in some cases seems to be that the places are not large enough to permit of this. Generally speaking, they are in fair condition, but from one district come reports of an extremely unsanitary condition, one or two being unfit for public laundry work, and occupants were ordered to vacate the premises, as little could be done to remedy matters.

Complaints.

Due attention was given to all complaints received from various sources. They were not very numerous, nor were those sustained difficult of adjustment.

Other requirements of the Act have all received a share of the Inspectors' attention. There have been some contraventions but in a lesser degree, and on the whole reports for the year are good.

Accidents.

Four thousand nine hundred and seven accidents were reported this year, with 78 fatalities. This is an increase over last year in non-fatal but not in fatal accidents. In 1917, three thousand nine hundred and twenty-five accidents were reported, with 1.89 per cent. fatal, and in 1918 four thousand nine hundred and seven, with 1.59 per cent. fatal. A number of minor accidents reported were from plants engaged in the manufacture of munitions from shells falling, causing bruises and lacerations or other injury to fingers or toes.

Three of the fatalities reported were from natural causes, three from drowning. The others were due:—

To elevators	12
" electricity	8
" falling substances	6
" shafting, belts and pulleys	9
" acid and gas burns	5
" falls	8
" explosion of ammonia receiver	3
" explosion of guncotton	1
" explosion of cylinder-head	1
" machines	3
" cranes and derricks	7
" scalds	2
" cars	5
" saws	1

Injuries and causes of all accidents are shown in tables attached. Particulars of fatalities are given as follows:—

Asa Shaver, an employee of the Massey-Harris Co., Brantford, was killed while operating an elevator. The elevator was in a satisfactory condition, but it appears that he had been seized with heart failure and had fallen off.

Arthur Winger, an employee of the Norton Mfg. Co., Chippewa, while moving a motor crane missed his footing and fell, fracturing his spinal column and sustaining other injuries.

Frank Jenner, employed by Penmans Ltd., Paris, was crushed between the top of elevator and cross beams. Contrary to instructions he was oiling slides from the roof of elevator.

Amos Sage, an employee of Pratt & Letchford, Brantford, was killed by a fall from platform after finishing some repairs to a drop hammer. The platform was secure but there was no railing and it is supposed he lost his balance and fell, striking his head.

Andrew Zaba, an employee of the Steel Co of Canada, had skull, arms and legs fractured; while working at No. 3 Drop, the carrying piece broke allowing skull iron to fall.

Fred Ford, employed by John Bertram & Sons Co., Dundas, fell down cellar stairs and fractured his skull.

Charles Clark, employed by the Canada Cement Co., Port Colborne, was caught in a serew conveyor and bled to death before he was released. It appears he attempted to remove the cover, and losing his balance, got his leg into the conveyor which severed the main artery.

Alfred Bates, an employee of the Canada Glue Co., Brantford, while assisting in cleaning machinery, apparently got too close to counter shaft and was caught and wound round shaft and killed almost instantly.

Siginand Rozanowiki, an employee of the Canadian Steel Foundries Ltd., Welland, was killed by a steel pile tipping over and pinning him against another pile.

Ralph Duffy, also an employee of the above firm, was electrocuted: he touched a motor which was being repaired, when the power was turned on.

John Dafoe, employed by the Delhi Canning Co., Delhi, when taking goods up in elevator was caught and fatally injured.

J. Hinks, an employee of the Dominion Steel Foundry Co., Hamilton, had skull fractured and chest and leg crushed. Cause unknown.

Daniel Belsi, another employee of the Dominion Steel Foundry Co., Hamilton, had his skull fractured; a load on crane broke directly over him.

Samuel Moore, employed by the Dominion Foundries & Steel Co., Hamilton, was injured, while crossing tracks, by cars which were being shunted; he sustained fractured shoulder, arm and leg, and head was crushed.

George Hastings, an employee of the Hamilton Facing Mill, was killed by being caught in shafting. It is not known how he got against the shaft, which was slow running, but apparently his smock caught and he was crushed by its winding around the shaft, as he was not thrown around shaft.

Alfred Ingram, Harry Sylvester and Geo. Cameron, employees of the Hamilton Tar & Chemical Co., Hamilton, were killed as the result of an ammonia receiver exploding.

George Wolsey, employed by the International Harvester Co., Hamilton, sustained a severe injury to chest when his horse ran away, which caused his death. His lungs were apparently penetrated.

William Hesketh, also an employee of the International Harvester, was run over by an electric crane and killed.

Zotique Larcoque, employed by the Beach Foundry Co., Ottawa, was caught in a rumbling mill, carried over and crushed. His ribs were broken and heart pierced.

Jean Baptiste Lacasse, while crossing a dam fell through a hole and was drowned. He was employed by J. R. Booth, Ottawa.

Arthur Dugas, employed by J. R. Booth, while playing at the noon hour, climbed up a derrick, which fell, throwing him down, the main beam of the derrick striking his head and crushing it.

D. W. McLeod, employed by Adams Bros., Toronto, was killed by a fall down elevator shaft. The accident occurred at the noon hour and no one saw it, but hoist was found to be in good order.

Victor McMillan, an employee of the Goodyear Tire & Rubber Co., New Toronto, received a shock from an electric wire which caused him to release his hold on ladder, and he fell to the ground.

J. H. Soper, employed by Gunther & Co., Toronto, was standing on the floor between safety gate and elevator and pulled the wrong rope; he was caught and crushed by elevator.

James Bell, employed by the Imperial Oil Co., Sarnia, fell into separator containing wax, water and oil, and was fatally scalded.

Richard Lynch, also employed by the Imperial Oil Co., Sarnia, was fatally burned by gas; it is supposed that a small amount of gas collected at the sewer head and became ignited.

John Rewers, employed by the Oakville Basket & Veneer Co., Oakville, stepped into a tank used for steaming logs and was scalded.

John Weeks, an employee of the Campbell Flour Mills Co., Toronto, fell down an elevator shaft and was crushed.

Fred Canning, an employee of the Canadian Cereal & Flour Mills, Galt, received injuries which resulted in death, through clothing being caught in shaft; there were no witnesses, but it is supposed that in replacing a belt on pulley his clothes were caught.

L. Martineau, an employee of the Canadian Explosives Ltd., Nobel, was fatally injured while tapping pipe in which there were some guncotton particles remaining, causing it to explode.

Alex. Gibson, another employee of this firm, was killed while repairing cut-out fuses on electric power lines.

Jos. Giguere, an employee of the Canadian Explosives Ltd., Nobel, died from the effects of acid burns. Another employee, Thomas Morin, also died from acid burns.

J. Seblefski, employed by the Dominion Sugar Co., Kitchener, was caught in shafting and killed; he was trying to put a belt on a pulley while in motion.

George Lamb, employed by the Midland Engine Works, died from injuries received when he was caught and wound around a shaft. Clothing caught.

W. Zaggh, employed by the Swift Canadian Co., Ltd., Toronto, was electrocuted; when lowering a window frame it came in contact with tension wire, cutting insulation.

F. Barter, another employee, was also shocked and fatally burned from the same cause.

Thomas Browning, employed by the Swift Canadian Co., Toronto, died of concussion of the brain due to fall.

C. Kelly, employed by the Ford Motor Co., suffered a stroke of apoplexy and died.

Robert Henry, employed in the Grand Trunk shops at Stratford, was struck in the abdomen when cylinder head exploded, and died as the result.

Robert Sprentall, an employee of the Brighton Canning Co., Brighton, was caught in a shaft and killed; he was standing near the revolving shaft taking measurements when his clothing was caught by a revolving projecting set screw.

F. G. Day, employed by the Chemical Co., Trenton, died from the effects of nitrous fumes.

W. R. Rankin, an employee of the above firm, was fatally burned by acid when the nitrator boiled over.

N. Tamezuk, employed by the Canada Cement Co., Point Ann, was hit on the head by a belt and died of concussion.

George Forgoine, an employee of the De Laval Co., Peterborough, had his skull fractured; he is supposed to have fallen when taking down a box.

William Kemp, employed by the Dunlop Tire & Rubber Goods Co., Toronto, died of heart failure.

Henry Patterson, employed by the Hydro-Electric System, Sub-station, Toronto, was electrocuted as a result of not using things provided for the protection of employees.

Millen Pearson, an employee of the Peterborough Milk Products, Peterborough, was caught by balancing weight on an elevator. He had stepped on a bench and put his head over the partition.

John Clancy, an employee of the Quaker Oats Co., Peterborough, while assisting to move some cars on a siding, was caught between drawheads of cars and badly crushed.

At the Algoma Steel Corporation's Plant, Sault Ste. Marie, the following fatalities occurred;

Leo Maki was struck on the head by a falling plank and his skull fractured.

James Fitzgerald fell between cars and had his leg crushed, from which injury he died.

John Swanson was struck by a charging machine and was so severely injured he died.

Fred Woods went down to the river for a swim while mill was changing rolls, and was drowned.

Angus McDonald fell, while climbing up to the top of a box car, between cars and was instantly killed.

Rudolph Bolduc, an employee of the Beaver Abitibi Timber Co., Frederickhouse, had his skull fractured; the pocket of his overalls caught in the end of a slab slasher shaft.

Harry Olchowski, employed at the Canadian Pacific Railway Co's coal dock, Fort William, stepped between car and car loader machine and was instantly killed.

Raoul Caron, employed by the Keewatin Lumber Co., Keewatin, tried to operate an edger while the workman was away, and was struck in the stomach by a piece which came back.

John Scarfone, employed by the Lake Superior Paper Co., Sault Ste. Marie, was drowned in a trough; as he was subject to fits he is supposed to have fallen in.

Matt Doyle, another employee of the above company, died of heart failure.

John Lippa, employed by the Port Arthur Shipbuilding Co., died of injuries which he received when he was jammed between a stanchion and overhead crane.

Nick Ladibec, employed by the Port Arthur Shipbuilding Co., was killed by a load of iron falling on him.

John Maskalyk, an employee of the Quaker Oats Co., Sudbury, became entangled in a cable while it was winding on iron drum, and died from injuries; his arm was fractured and his breast badly crushed.

W. Piche, an employee of the Spanish River Pulp & Paper Mills, Espanola, fell off pile and broke his back.

Arthur Taylor, employed by the British Acetones, Toronto, was killed by top section of iron casting falling on him.

Robert Freeman, employed in the Canadian Pacific Office Building, Toronto, fell off the top of elevator shaft and was killed.

John J. Jamieson, an employee of Christie, Brown Co., Toronto, attempted to get off moving elevator and was caught between floor and elevator.

William McNeil, employed at Firstbrook Bros., Toronto, was caught in elevator.

Robert S. McCormack, employed by Maldaver & Co., Toronto, was killed in elevator accident; body was found crushed.

Henry Atkins, an employee of the Nineteen Hundred Washer Co., Toronto, was killed by a fall from a ladder.

Peter Phillips, employed by the Palm Olive Soap Co., Toronto, was electrocuted by touching contact limit switch on elevator.

Ernest Kennard, employed by Polson Iron Works, was struck by handle of crane which fell and his skull was fractured.

Joseph Hubbard, an employee of the Sheet Metal Products Co. of Canada, Toronto, had his skull fractured; he put his head under moving machine.

Joseph Wiggins, employed by Simpson Co. Ltd., Toronto, slipped while oiling wheel and fell on main drum of elevator, and was crushed between elevator and wall.

Thomas Ferguson, an employee of the Toronto Shipbuilding Co., was struck by a plank which fell from a scaffold, and his skull was fractured.

Edwin Samsome, an employee of the Toronto Shipbuilding Co., Toronto, was drowned: no one witnessed the accident.

George Thomas, employed by Hepburn & Disher, Toronto, was killed by blow on forehead from handle of derrick.

Ira Pynn, employed by Hinde & Dauch Paper Co., Toronto, was killed by having his head caught in elevator.

Why Goggles Should be Worn at Certain Work.

In the metal trades this year 297 accidents to eyes were reported, 153 or 51.5 per cent. due to foreign matter entering the eyes, causing ulcers, abcesses or inflammation. This might be attributed to workmen wearing unsuitable or improperly constructed glasses or none at all. One hundred and fifty-three accidents from the above cause are 153 good and sufficient reasons why proper protection should be provided and why care should be exercised in selecting goggles and in wearing them. Fifty-one or 33.3 per cent. of these occurred at emery wheels, 65 or 42.4 per cent. while working at lathes or shears or chipping, 19 or 12.4 per cent. from scale and 18 or 11.07 per cent. porcelain or other dust, lime, cinders, ashes, sand, etc. All these are preventable accidents and with proper protection would not have occurred. The result of wearing improper goggles is illustrated in one case reported of particles getting *under* the glasses, which were probably ill-fitting ones.

The danger of accidents from acetylene welding appears not to be quite realized. There are many causes contributing towards injuries to these workers which are set forth very fully in *Safety Engineering*, but the cause we have reason more particularly to refer to in this report is again lack of or unsuitable protection for the eyes. The injuries reported this year were soreness of the eyes caused by working in too close proximity to an acetylene welder, and injury by a flash from the welder. In providing goggles for workmen it should be remembered that the colour is important, for it is well known that ordinary blue glass, which is sometimes

used, will intensify the rays of light from these welders—that in itself is injurious enough—and increase the harmful effects, and they should be both light in weight and well-fitting, with brown or dark amber, or purple lenses which would reduce the intensity of the light: a goggle that is now on the market is one having two layers of red and two of blue glass which produce the purple effect.

The plea of some workmen that better work can be done without goggles is not borne out by experienced workers, and the practice of pushing them up on the forehead, or taking them off altogether is paid for by impaired sight if not blindness. To employers we would say, provide proper protection—to workmen, wear goggles, wear the right kind—wear them *over the eyes.*

Accidents Caused by Electricity.

Electricity, perhaps more than any other hazard, calls for thought, care, and a full knowledge of the possibilities for destruction that lie in it, and there is frequently a lack of all three. This agency was responsible for 8 fatal and 30 non-fatal accidents reported during the year. The injuries were of three types, burns, shock and flashed eyes, and occurred when testing, repairing or otherwise handling electrical apparatus. The fatalities were caused by:—

Shock, causing fall	1
Repairing cut-out fuse	1
Allowing steel window frame to come in contact with high tension wire	2
Not using proper appliances	1
Repairing auto starter	1
Cutting insulators	1
Touching limit switch on elevator	1

The ordinary cause of accidents from electricity in industrial plants are short circuit flashes and rays from the electric arc. The result of the latter is flashed eyes and is one of the hazards of electric welding as well as of acetylene welding. There is a danger, too, from insulation becoming worn out or breaking down, and many injuries are the result of men, through familiarity with the work or absent-mindedness, relaxing their vigilance, or relying too much on the supposed infallibility of protective measures. That electricity is a power to be reckoned with is a fact that must be impressed on workmen, and the sense of their own responsibility for accidents from this cause quickened.

Accidents Which Are Not Attributable to Machinery.

Little more than 20 per cent. of all the accidents reported in 1918 were due to machinery and its connections.

In the metal trades, and we are dealing more particularly with the metal working industries because nearly 80 per cent. of the accidents reported were from these trades, the four causes contributing most largely were, falling substances, jammed between or against articles, falls, and "other causes", that is, cuts on ragged edges, blows, glass, stepping on nails, wire scratches, and like apparently simple causes, temporary accidents usually, the result of which is chiefly loss of time—but time is money—to both employer and employee.

These causes are governed largely if not entirely by the employee: he has the solution for eliminating these accidents to a great extent in his own hands, but he needs help. It is now realized that there are men who have to be taught how

to lift, how to pile, how to carry, even how to think—to be saved from themselves—and to this end the interest of the foreman is necessary, he must realize his obligations. Without co-operation on the part of all parties concerned little headway will be made, and it will not do to say that a workman is careless, or thoughtless, or any other one of what are known as the seven deadly sins of industrial workers: he must be trained to "think" as he is trained to work, and taught "caution" for his own sake as well as his fellow-workers, who are frequently the victims of his "thoughtlessness."

Elevator Accidents.

Although the percentage of elevator accidents is not as high as many other causes, they are usually more serious, and they head the 1918 list of fatalities. Investigation, however, shows that in most cases they were due to acts of the employees themselves rather than to faulty equipment. Attempts of inexperienced men to operate a hoist, or to try to board a hoist while it is in motion, are dangerous practices, and such risks taken are almost sure to be disastrous. Three of the elevator accidents this year were due to just those risks, another to a man putting his head over the protected side of an elevator with the result that he was struck by the counterweight. An unguarded belt was the cause of another.

Few accidents are recorded of injuries to persons through falling cars, and it is chiefly on freight elevators that accidents of the above nature occur. Analysis of elevator accidents shows:—

Falls off elevators	4
Cars falling	4
Crushed between car and shaft	20
Falls down shaft	11
Struck by falling gate	1
Around elevators	4

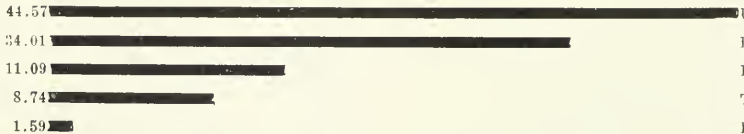
Crane Accidents.

The danger of crane accidents comes not only from the operation of a crane, or the equipment, but those working under or near-by are liable to be injured from loads or other things dropping from overhead unless proper care is taken to provide measures of safety, and the employees show a due regard for warning signals.

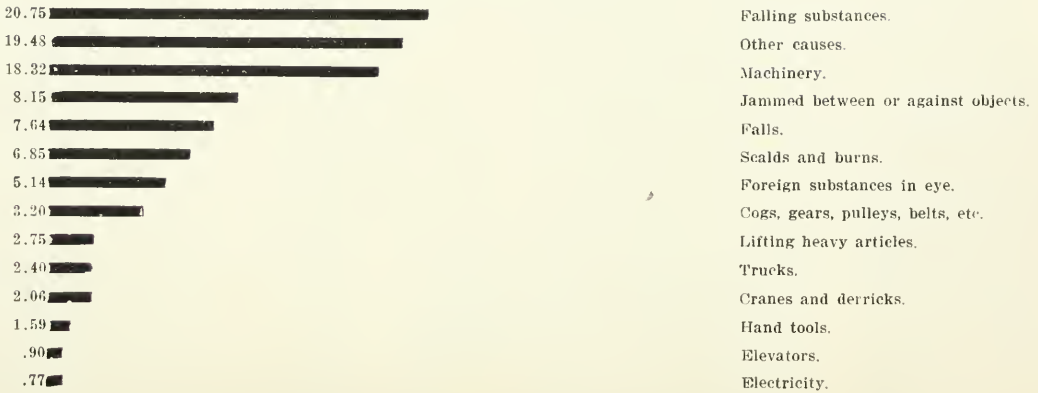
Fatalities due to cranes and derricks were more numerous than last year, and in some cases at least there was not the protection afforded the workers there should have been. An accident particularly noted was one which occurred in an open steel building, where, therefore, there was no partition between the tracks of the cranes; a man going up the ladder to get on the south crane was struck by the north crane, with fatal results. To prevent a recurrence of accidents such as this it was recommended that in addition to a platform between pillars on a level with the floor of the crane cab and a wider floor in the cab, a screen be placed between the tracks the whole length of the building to make it impossible for any one to get from one track to another.

Platforms sufficiently wide and efficiently guarded, and open spaces properly covered will lessen the chances very materially of injury through falls or falling loads.

ACCIDENTS, 1918—INJURIES.



ACCIDENTS, 1918—CAUSE.



Class of Industry	Head and Face								Upper Extremities					Trunk									Lower Extremities								Total
	Head	Ears	Eyes	Cheeks	Lips	Forehead	Neck	Face	Shoulder	Arm	Wrist	Hand	Thumb	Fingers	Other Injuries	Chest	Back	Ribs	Abdomen	Hips	Groin	Thigh	Side	Stomach	Leg	Ankle	Foot	Knee	Toes	Heel	Multiple	Fatal	
Metal Trades	86	3	297	..	..	..	..	6	67	43	136	93	299	211	970	48	20	112	35	9	17	14	25	35	6	162	116	420	52	342	16	219	21	3,880
Woodworking Trades	..	..	1	..	..	..	..	..	..	1	1	3	5	9	31	1	..	1	1	1	..	..	..	..	..	..	..	3	..	1	..	5	3	67
Paper and Paper Industries	14	..	8	..	..	..	..	4	3	22	8	26	16	69	6	..	10	2	..	1	1	2	1	..	20	6	24	6	11	..	41	6	307
Textile	2	1	4	..	..	..	..	..	2	2	..	9	6	28	1	..	3	3	..	..	..	..	..	..	1	3	2	1	1	..	2	2	73
Lumber	5	..	2	..	..	..	..	3	1	9	2	9	2	29	9	..	2	2	..	..	2	..	3	1	7	5	15	4	3	..	14	4	133
Wearing Apparel	1	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3
Shipbuilding	7	..	2	..	..	..	..	1	..	2	..	1	2	8	1	1	..	4	..	..	..	..	1	..	4	1	7	..	6	..	9	5	62
Processes in C. G. and Stone	..	..	2	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	2	7
Chemicals	2	1	3	..	..	..	2	..	..	2	2	2	3	12	7	..	2	1	2	1	..	..	1	..	4	..	1	2	2	..	16	11	79
Unclassified	..	..	..	..	..	..	..	..	..	..	1	1	4	..	1	..	..	..	..	..	..	..	..	..	1	2	2	1	..	..	6	5	24
Rubber	2	1	4	..	..	..	..	2	11	8	11	8	32	6	2	5	1	1	..	..	..	..	1	4	..	15	5	11	..	12	2	144
Transportation	5	..	2	..	..	..	1	3	2	1	..	5	6	4	3	3	..	..	1	..	..	..	1	5	6	2	6	11	..	6	2	75
Leather	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	5
M'f'g and Prep. Food	1	..	2	..	..	..	..	..	..	..	1	1	1	3	1	..	..	..	..	..	..	..	1	..	4	2	2	..	..	..	7	13	39
Conveyances, etc	3	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	1	..	1	1	9
Total	128	6	327	..	..	..	6	77	57	188	120	364	264	1,194	86	26	138	49	13	20	17	27	44	9	213	141	493	77	389	16	340	78	4,907

ACCIDENTS, 1918.—CAUSE

Class of Industry	Falling substances	Electricity	Lifting heavy articles	Jammed between or against articles	Belts—Pulleys, etc	Chains, hooks, cables	Other causes	Falls	Elevators	Scaffolds	Flying particles	Trucking	Cogs, gears, sprockets	Hand tools	Foreign substance in eye	Engines and cars	Molten metal and other burns	Jointers	Lathes	Presses	Shears	Saws	Winders	Emery wheels	Hammers	Carriers	Rolls	Planers	Barkers	Other machines	Conveyors	Cranes, derricks	Blood poisoning infected wounds	Fumes	Punches	Riveters	Reamer	Attachments	Gas	Wire	Chucks	Drills	Grind	Total
Metal Trades	885	22	78	343	28	64	599	248	20	23	83	104	23	51	153	59	262	13	53	74	44	29	..	66	67	4	37	20	..	131	..	95	58	3	24	8	11	29	22	16	8	23	..	3880
Woodworking Tds	2	..	3	....	1	..	3	2	2	4	..	1	1	2	1	..	....	3	2	3	20	..	..	..	..	..	1	8	..	6	1	..	1	..	..	..	..	..	..	..	..	..	..	..	67
Paper and Paper Industries	47	6	29	20	4	4	32	39	2	5	3	6	1	3	3	2	....	1	..	..	..	7	14	..	1	3	6	..	24	38	..	1	....	..	..	..	..	..	..	..	..	..	6	307
Textile	4	..	3	1	6	..	8	5	3	1	1	..	2	2	....	..	1	..	..	1	..	..	..	..	..	1	..	..	..	31	..	..	2	1	..	..	..	..	..	..	..	..	..	73
Lumber	17	..	6	11	3	2	19	18	..	1	..	3	....	2	....	1	....	..	3	..	1	29	..	..	..	5	..	2	..	10	..	..	..	20	..	..	..	..	..	..	..	..	..	..	133
Wearing Apparel	....	..	....	....	1	..	1	..	1	..	..	..	..	..	..	..	....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3
Shipbuilding	16	..	....	2	1	1	3	16	1	1	1	1	1	3	1	1	....	..	..	1	..	3	..	..	..	..	..	1	..	6	..	1	....	..	..	..	..	..	..	..	..	1	..	62
Processes in C. G. and Stone	....	..	....	1	1	..	1	1	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	....	..	..	..	..	..	..	..	..	..	..	7
Chemicals	4	3	1	....	1	..	12	8	1	8	..	..	....	1	1	..	4	..	..	5	..	..	..	..	..	..	..	1	..	5	1	1	2	20	..	..	..	..	..	..	..	..	..	79
Unclassified	1	1	....	1	1	2	2	3	5	..	..	..	..	3	..	..	....	..	..	..	..	1	..	..	..	..	..	..	..	4	..	..	....	..	..	..	..	..	..	..	..	..	..	24
Rubber	22	2	15	10	3	..	27	14	2	..	1	2	....	8	1	..	1	..	..	1	..	..	..	..	..	1	4	..	..	21	..	2	6	1	..	..	..	..	..	..	..	..	..	144
Transportation	16	3	....	11	..	1	26	11	..	..	..	..	....	2	1	2	2	..	..	1	1	..	..	..	..	2	..	..	..	..	..	1	....	..	..	..	..	..	..	..	..	1	..	75
Leather	....	..	....	....	..	..	..	1	..	..	..	..	....	..	..	..	....	..	..	..	1	1	..	..	..	..	..	..	..	2	..	..	....	..	..	..	..	..	..	..	..	..	..	5
M'f'g & Prep. Food	1	1	....	....	3	1	9	10	6	..	..	1	1	..	1	1	....	..	..	..	..	..	..	..	..	..	1	..	..	3	..	..	....	..	..	..	..	..	..	..	..	..	..	39
Conveyances	3	..	....	....	..	..	2	..	..	..	..	..	....	1	..	..	....	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	....	..	..	..	..	..	..	..	..	..	..	9
Total	1018	38	135	400	53	75	738	375	44	43	89	118	29	78	163	66	271	17	58	87	46	93	14	66	70	13	51	31	24	258	2	101	69	25	24	8	11	29	22	16	8	25	6	4907

REPORT OF THE CHIEF INSPECTOR OF STEAM BOILERS

October 31st, 1918.

W. A. Riddell, Esq., M.A., Ph.D., Superintendent, Trades and Labour Branch, Department of Public Works, 15 Queen's Park, Toronto.

SIR,—I herewith submit my Sixth Annual Report of the work done by the Boiler Inspection Section of the Trades and Labour Branch of the Department of Public Works, during the year ending October 31st, 1918.

The following is a summary of the work performed:—

DRAWINGS AND SPECIFICATIONS SURVEYED AND REGISTERED.

Boilers	42
Boilers returned to manufacturer for corrections	18
Boilers rejected	2
Steam Pipe Lines	29
Steam Pipe Lines, returned to manufacturer for correction	16
Tanks	3
Boiler Fittings	41
Trough, "Steam"	1
Separators, "Steam"	1
Receivers, "Air"	2
Traps and Receivers, Tanks	1
Receivers, "Steam"	1
Pans, "Steam"	1
	158

INSPECTION WORK.

New Boilers inspected	175
New Digesters inspected	8
New Steam Drums inspected	1
New Tanks inspected	20
New Separators inspected	1
New Steam Pipe Lines	42
Boiler Plates condemned	21
Used Boilers inspected	801
Special inspection of used boilers in cheese factories	43
Special inspection of apparatus in Military Hospitals	8
Used Digesters inspected	3
Used Tanks inspected	9
Used Drums inspected	2
Used Sterilizers inspected	3
Used Fire Engines inspected	1
Used Locomotives, complete, inspected	4
Used Vulcanizers inspected	1
Boilers condemned	18
	1,161

CERTIFICATES ISSUED.

Class "A" certificates issued	173
Class "B" certificates issued	469
Class "C" certificates issued	181
Class "D" certificates issued	18
Fees and expenses collected	$9,994 84

Yours truly,

D. M. MEDCALF,
Chief Inspector of Steam Boilers.

REPORT OF THE INSPECTOR OF LABOUR AGENCIES

FOR FISCAL YEAR ENDING OCTOBER 31st, 1918

W. A. Riddell, Esq., M.A., Ph.D., Superintendent, Trades and Labour Branch,
15 Queen's Park, Toronto.

DEAR DR. RIDDELL:—

I beg to submit herewith for your consideration the Second Annual Report of the Inspector of Labour Agencies for the fiscal year ending October 31st, 1918.

The Act regulating the operation of private, voluntary and municipal employment agencies in the Province of Ontario became effective at the beginning of the fiscal year 1917-18.

Sixty private employment agencies applied for and received the necessary license to operate a private employment agency under the terms of the new Act. Voluntary or municipal licenses were issued to four non-fee-charging agencies. Permission to operate private employment agencies was refused in the case of four applicants whose previous record in employment work did not warrant their being granted the Provincial license.

Two prosecutions were necessary during the year in connection with violations of the Act. In January, J. Colliton was summoned to appear in the Toronto Police Court on a charge of operating an employment agency without the required license. He was remanded for sentence by the Magistrate on the ground that there had been no deliberate attempt to evade the Act, but that the offence had been merely of a technical nature. In the month of August Boris Liberman appeared before the Police Magistrate in Toronto on a charge of operating an employment agency in direct defiance of the Department's order to close his office. Mr. Liberman collected men in Toronto and booked them to a northern lumber concern through the office of a licensed private employment agent in Toronto: he then accompanied the party to their destination where he collected $2 each for them from the employer. His contention that he was not operating an employment agency because he did not charge the men themselves any employment fee, was overruled by the magistrate and he was fined $300 or twelve months in jail.

A systematic inspection was made from time to time of the private employment agencies throughout the Province. In the majority of cases it was found that carelessness and incompetency were shown in the keeping of employment records. The private employment agent's interest is too largely centred in his remuneration for him to be interested in the welfare of the man who passes through his hands. The enforcement of the Employment Agencies Act has, to a certain extent, remedied conditions, but the methods used by the average employment agent, both in engaging men and in keeping books and records, cannot be commended.

It is interesting to note that private employment agencies are to be found in practically every section of the Province. In the Twin Cities of Fort William and Port Arthur seven employment agents were engaged in business during the fiscal year covered by this report. Toronto alone had no less than twenty fee-charging agencies. Ottawa, which has always been an important centre for the distribution of labour for the lumber camps, had twelve private employment agencies, while there were in Sudbury eight agencies. There were thirteen other private employ-

ment agents in the Province whose operations extended from Windsor to Cobalt. In addition to these Ontario offices the private employment agents of Quebec have long regarded Ontario as a profitable field for their employment efforts. As a result practically every train between Montreal and the northern districts of Ontario carries from two to five gangs of men, who are being shipped into Ontario by the Quebec agents. On account of the fact that that Province allows a larger employment fee than Ontario, and also on account of the cost of transportation and the number of meals required travelling to their place of employment, there has been a great deal of dissatisfaction, both amongst the men themselves and also among the employers. The records of one employment agency, when examined recently, showed that in the case of some 100 men shipped from Quebec into Ontario there were deductions varying from $35 to $150 made from their first earnings in order to compensate the private employment agent, who had advanced transportation, meals, clothing and money to them. The iniquities of such a system of peonage are at once apparent, and it is fortunate that the recently enacted Employment Agencies Co-ordination Act will abolish irregularities of this nature.

Yours, etc.,

H. C. Hudson,

Inspector of Labour Agencies.

APPENDIX

THE EMPLOYMENT OFFICES CO-ORDINATION ACT.

AT THE GOVERNMENT HOUSE AT OTTAWA.

Tuesday, the 17th day of December, 1918.

Present:

HIS EXCELLENCY THE GOVERNOR-GENERAL IN COUNCIL.

His Excellency the Governor-General in Council, on the recommendation of the Minister of Labour, and under and by virtue of the provisions of the Employment Offices Co-ordination Act, chapter 21, Statutes of Canada of 1918, is pleased to make and enact the following regulations, and the same are hereby made and enacted accordingly:—

THE DEPARTMENT OF LABOUR.

1. It shall be the duty of the Department of Labour under the Employment Offices Co-ordination Act:—

(*a*) To encourage the Provincial Governments to open new employment offices, to develop those already in operation and to establish provincial clearing-houses which shall endeavour to meet any unsatisfied demand for employment by drawing upon any supply within the Province, or, if such is not available, by securing labour through the Dominion clearing-house from any surplus in other Provinces.

(*b*) To maintain one or more Dominion clearing-houses for the interprovincial distribution of labour.

(*c*) To provide for the co-operation of provincial employment offices and provincial clearing-houses with existing non-commercial employment agencies, with a view to the gradual absorption of such agencies.

(*d*) To promote uniformity of methods in provincial employment offices.

(*e*) To establish a system of inspection of provincial employment offices.

(*f*) To collect and publish information as to the condition of the labour market.

(*g*) To exercise supervision over private advertising for labour.

(*h*) To print at the expense of the Department of Labour all forms used by the employment offices.

(*i*) To carry out, with the approval of the Minister, the recommendation of the Employment Service Council of Canada.

(*j*) To pay to the Provincial Governments, upon the compliance with these regulations, amounts due them under the Employment Offices Co-ordination Act, as shown in the reports required of them by the Minister of Labour.

2. In the discharge of these duties the Department of Labour shall co-operate with the several departments of the Government in any matters requiring common or united action, and each department of the Government and the officers thereof shall assist and co-operate with the Department of Labour and its officers.

The Employment Service Council of Canada.

1. To assist in the administration of the Employment Offices Co-ordination Act and to recommend ways of preventing unemployment, the Minister of Labour shall, with the approval of the Governor in Council, establish an Advisory Council to be known as the Employment Service Council of Canada. Such Council shall consist of:—

One member each appointed by the Provincial Governments.
Two members appointed by the Canadian Manufacturers' Association.
Two members appointed by the Trades and Labour Congress of Canada.
One member appointed by the Railway War Board.
One member appointed by the Railway Brotherhoods.
Two members appointed by the Canadian Council of Agriculture.
Three members appointed by the Department of Labour, two of whom shall be women.
One member appointed by the Returned Soldiers.
One member appointed by the Soldiers' Civil Re-establishment Department.

Two members of the Employment Service Council of Canada, including the chairman, shall hold office for three years and shall be eligible for re-appointment.

The Provincial Governments.

1. The Provincial Governments shall have direction of their own employment offices, subject to the terms of the agreement with the Minister of Labour under the Employment Offices Co-ordination Act.

2. Each Province shall establish a clearing-house to provide for the distribution of labour within the Province and to co-operate with the Dominion clearing-house for the interprovincial distribution of labour. The provincial clearing-house shall furnish such reports, as to employment conditions, as the Dominion clearing-house may require.

3. In connection with the employment office administration of each Province there shall be an advisory council equally representative of employers and employees, appointed by the Lieutenant-Governor in Council. It shall be the duty of the advisory council to safeguard the interest of employers and employees of the Province in the distribution of labour; to direct the policy of the local advisory committees and to co-operate with the Dominion Employment Service Council of Canada.

The Employment Offices.

1. The employment offices shall endeavour to fill vacancies in all occupations and shall serve both male and female employees.

2. The Provincial Government shall establish, for such employment offices as they deem advisable, local advisory committees consisting of equal number of persons representing employers and employees in the locality, together with a chairman agreed upon by a majority both of the persons representing employers and of the persons representing employees, or, in default of such agreement, appointed by the Provincial Government.

3. It shall be the duty of the local advisory committees to assist the superintendents of the employment offices in the discharge of their duties, and to co-operate with the Provincial advisory committees in the work of applying the national employment policy to the industry of the Province.

4. As to wages and conditions, the following regulations shall be observed:—

(*a*) The officer in charge of an employment office in notifying applicants for employment and vacancies to employers and applicants, respectively, shall undertake no responsibility with regard to wages, or other conditions, beyond supplying the employer or applicant, as the case may be, with any information in his possession as to the rate of wages desired or offered.

(*b*) Copies or summaries of any agreements mutually arranged between associations of employers and workmen for the regulation of wages or other conditions of labour in any trade, may, with the consent of the various parties to such agreement, be filed at an employment office, and any published rule made by public authorities with regard to like matters may also be filed. Documents so filed may be open to inspection on application.

(*c*) No person shall suffer any disqualification or be otherwise prejudiced on account of refusing to accept employment found for him through any employment office where the ground of refusal is that a trade dispute exists, or that the wages offered are lower than those current in the trade in the district where the employment is found.

5. In dealing with strikes and lockouts the employment offices shall observe the following regulations:—

(*a*) Any employer or association of employers or group or association of workmen may file at an employment office a statement with regard to a strike or lockout existing or threatened, affecting their trade, or a branch of their trade, in the district. Any such statement shall be in the form provided for the purpose and shall be signed by a person authorized by the association for that purpose. Such statement shall be confidential except as hereunder provided, and shall only be in force for seven days from the date of filing, but may be renewed within that period for a like period and so on from time to time.

(*b*) If any employer who appears to be affected by a statement so filed notifies an employment office of a vacancy or vacancies for workmen of the class affected, the officer in charge shall inform him of the statement that has been filed and give him an opportunity of making a written statement thereon. The officer in charge in notifying any such vacancies to any applicant for employment shall also inform him of the statements that have been received.

(*c*) The Provinces may adopt any further regulations with regard to strikes and lockouts which they deem necessary.

RUDOLPHE BOUDREAU,

Clerk of the Privy Council.

REPORT

OF THE

Minister of Education

Province of Ontario

FOR THE YEAR

1918

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO

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REPORT

OF THE

MINISTER OF EDUCATION

FOR THE YEAR 1918

To His Honour

COLONEL THE HONOURABLE SIR JOHN HENDRIE, K.C.M.G., C.V.O., etc., etc.

Lieutenant-Governor of the Province of Ontario.

MAY IT PLEASE YOUR HONOUR:

I beg leave to present the Report of the Department of Education for the year 1918. The statistics in the Report are chiefly for the calendar year 1917, and the appendices include reports from the Inspectors and various officials whose duties call for annual statements of the work done in the several branches. The circumstances of the time call for more than a formal presentation of the work of this Department.

Reconstruction and Education

In the earlier days of the war the term "Reconstruction" was used to express a return to the conditions of July, 1914. The practical tasks of reconstruction were the two related problems of *demobilization* and *restoration*—how to get men as quickly as possible from their war positions in the army or in industry back into their old niches in civil life, and how to free employers and employed from the restrictions and control of war with a view to restoring the methods of the past. But as time went on and the deeper lessons of the struggle were being impressed on men's souls, the word *reconstruction* took on a deeper meaning. Men sought for more than a simple return to pre-war conditions. There grew the ideal of a better world after the war. By war achievements there was developed an enlarged sense of what is possible and a quickened sense of what is just. Not the old conditions but better conditions for all, is the aim of a true reconstruction.

The basis of reconstruction is the conservation and development of our human resources. All plans for commerce, industry, agriculture—all plans for the general utilization of our material wealth, depend upon the intelligence and character of the people. Reconstruction is thus inextricably bound up with the broad subject of education.

The War and Education

The importance of education has received fresh illustration from the world cataclysm of war. We have seen on a colossal scale the power of education over the souls and minds of men. It has been able to poison the springs of national life, to change and degrade national ideals, to minister to a monstrous vanity and egotism. Education, applied with persistence and pedantic pertinacity, is the most formidable instrument in the modern world for the control of conduct and the moulding of purpose. We have seen also that the application of science to industry and commerce can enormously develop the markets of a nation and increase its wealth. Technical and industrial education is a necessity if a country is to hold its own in world competition. Nothing but the best product sold and pushed in the most effective way can win a world market. This best product can be secured only by the best management and the most skilled labour, and these once more are linked with education. We have accepted as one of the aims of the war the making of the world safe for democracy. We believe that this on the whole is the noblest and safest form of government. But we equally realize that if the world is to be safe *under* democracy, then democracy must be intelligent. Of all forms of government, democracy can least afford to neglect universal education.

Especial Value of Children

All educationalists, indeed all thoughtful people, have long since recognized that the most effective service to the State can be rendered through the education and care of the young. Early formation is better than later re-formation. Prevention is better than cure. It is easier to train the child aright than to restore the adult. The age of the "Rights of Man" was succeeded by the age of the "Rights of Woman." Now we are living in the age of the "Rights of Children." Chief among their rights is the right to a sound education. But the appalling losses of our choice young men in these recent years have further enhanced the value of the present generation of children. War and influenza between them, so writes the medical correspondent of the *London Times*, have accounted for the deaths of 18,000,000 young men throughout the world. The children of to-day deserve special educational care, both because of their added obligations through the passing of so many of the world's young manhood and because of the altered world into which they will grow up. The State must therefore discharge its duty to the full, no matter what the cost, towards the conservation of the child. This means not only the preservation of life, but the best use of life and the fullest development of native gifts.

Broader Meaning of Education

We construe education to mean more than the impartation of knowledge and the training of the mind. Its broad scope covers bodily health and fitness, mental culture, devotion of spirit and social efficiency. The German educationalists thought of civilization in terms of intellect; the British in terms of character. Which ideal is the safe and worthier, history has already pronounced. Efficiency in itself is no more moral than lightning. From what motive does it spring? To what aim is it directed? The proper place of efficiency is as the servant of a moral ideal. Apart from such an ideal, efficiency may be an evil and wicked instrument which in the end works woeful disaster. In the early stages of the war, the organized efficiency of Germany, brutal and immoral, was hammering at the

doors of humane civilization and had almost beaten them down. But the free peoples held the enemy until their moral ideals could evoke their own efficiency and form of organization. When this was accomplished, the end was in sight

Our educational activities to-day must serve various purposes. They will cultivate the mind by liberal studies and aim to produce a trained intelligence. They will inculcate moral and patriotic ideals. They will also seek in some degree to prepare the pupil for his life work. His training will be both practical and theoretical.

Educational Activities of the Year

There have been many disturbing influences upon the work of the year. War conditions called for all available labour. Boys went from school to work on the farms. Academic standing was granted for this kind of national service. These agricultural permits have ceased with the cessation of hostilities. The influenza also worked havoc with schools over the whole Province. In order to give teachers and pupils more time to prepare for the necessary summer examinations, the date for such examinations has been moved forward two weeks. Examiners will doubtless, in the setting and the reading of papers, bear in mind the distracting conditions of the year.

The following table shows the number of schools, teachers and pupils in the Province, and suggests how great is the volume of the work carried on, how vitally important and how complex it is.

—	No. of Schools	Teachers	Pupils
High Schools and Collegiate Institutes	162	1,051	29,097
Continuation Schools	137	241	5,104
Public Schools	6,103	11,274	457,616
Separate Schools	548	1,488	70,048
Totals	6,950	14,054	561,865

In recent years the total Legislative grants for elementary and secondary education have been as follows:

1912-13	$1,912,880	1915-16	$2,020,075
1913-14	1,996,892	1916-17	2,225,804
1914-15	2,012,165		

The amount expended on education yearly increases. This is inevitable and desirable in a growing and progressive Province. The people are willingly spending larger sums on education, believing that it is the best investment they can make.

A gratifying feature is the rapid extension of the teaching of agriculture in our schools. This has been aided by the Federal subvention for agricultural education: at the present time, however, the Province is spending much more on this teaching out of its own funds than it is spending out of the Dominion grant. In 1911 there were 33 Public and Separate Schools qualifying for grants, on account of agricultural teaching. In 1918 there were 1,020. Five hundred and eighty-eight had school gardens and 432 home gardens. The number of High Schools taking agriculture in 1915 was 11; in 1918, 28. Four High Schools have regular and complete agricultural departments. All the Normal Schools (the sources of teacher supply for the rural schools) have, during the

last two years, materially developed their courses in agriculture and enlarged the area devoted to school gardens. The proposed erection of plant laboratories in connection with each Normal School will further facilitate agricultural teaching. Teachers of primary and secondary schools and Inspectors take summer courses in agriculture at Guelph in the Ontario Agricultural College. In 1911 the total attendance was 100, in 1918 it reached 447 and many could not be accommodated. For this summer's course, Guelph will be used to its limit, and in addition the Whitby Ladies' College will be rented to accommodate about 100 teachers. The object of this specialized education is to link the teaching in the rural schools especially, with the life and work of the farm. This object is being steadily attained. The Director of Elementary Agricultural Education, Dr. J. B. Dandeno, has published a "Manual of Elementary Agriculture" which has received warm appreciation from authorities both in Canada and in the United States. Dr. H. W. Foght, the specialist in Rural School Practice in the Bureau of Education at Washington, has written these words in acknowledgment of Dr. Dandeno's book: "I only wish that the average American state was as far along in making agriculture in all its small rural schools as practicable as you are making it in Ontario. Our trouble is this, that we either make so much of our agriculture or that we neglect it entirely. Thus in the larger consolidated schools it is very nicely worked out indeed, but in the one-teacher schools we are doing next to nothing. There you are ahead of us."

A cognate development is that of manual training and household science, under the direction of Inspector Leake. There are 90 manual training centres and 80 household science centres in the urban schools. Each of these centres gives instruction to about 250 pupils a week. This work is also being developed in rural schools, in spite of difficulties due to limited accommodation and resources. The Department offers substantial grants to assist rural school boards to purchase equipment, and equipments have been designed which take up but little space in a one-room school. To assist teachers in this work, Mr. Leake has issued a most helpful manual containing lessons on the care of the home, sewing, cooking, household science without school equipment and the organization and management of the hot school lunch. The rapid extension of the hot lunch in rural schools is a feature of the year. The manual training affords a skill of hand and an application of theoretical knowledge which are of real educational value.

Music and art are seen to be no longer mere adjuncts to education. They are channels for self-expression. They train the imagination. They open the eye to the beautiful in nature.

A notable feature in connection with technical education has been the opening of the new Industrial and Technical School in London. Well-built, well-equipped, it will stand as a model for similar institutions in urban centres. There is a quickened interest in industrial and technical education in most of the manufacturing cities and towns in the Province. On all hands inquiries are being made and plans formed for the erection of Industrial and Technical Schools or departments. In order to cope with the rapidly increasing work of this branch of Education, the Director of Industrial and Technical Education, Dr. Merchant, is being relieved of his duties as Inspector of Normal Schools. He will give his whole time to the Technical department and will be assisted by field assistants, who will organize the work of Industrial and Technical Schools in the various cities and towns and will prepare such courses of study and work as will best meet the needs of the particular locality. A new Director of Teacher Training will be appointed.

The Rural School

Movements of population from Europe to this continent, from Eastern Canada to Western, from the country to the city, have created difficult educational problems. In particular, the problem of the rural school has become serious. Those who live in rural sections are as eager as those who live in urban centres to secure the best educational facilities for their children. How can this best be effected? There is probably no one infallible method. But the most helpful plan yet devised is the consolidation of sections. The Consolidated School has proved successful in some of the western provinces and American states. We are seeking in Ontario to provide the fullest facilities for those sections which desire to consolidate. We shall give financial assistance toward the school and toward the all-important factor of the conveyance of pupils. All consolidations will be voluntary and must be duly approved by this Department. Better roads, increased means of rapid transportation, wider distribution of electric power will make life in the country more attractive than ever. There will be more of community spirit. Such a Consolidated School, with its assembly hall, should become the local community centre; and with its graded classes, better teachers, larger numbers, higher average of attendance, and advanced courses, it would bring the advantages of a High School education almost to the doors of the boys and girls on the farm. Perhaps no one educational step would solve more rural problems than would the Consolidated School.

There will, however, probably be many places where the one-room school is still a necessity. In any event the salary of the rural teacher is a factor in efficient teaching. The salaries of rural teachers have increased considerably in the last twelve years; but there is still room for improvement. It is our aim to stimulate an upward movement in salaries by further grants, given directly for salaries and on the basis of the amount paid by the locality. This method has produced good results in the past, and may be counted on to do as well in the future. The Consolidated School and the increased salary for the teacher will go far to solve the problem of the rural school. The School Inspectors must make a survey of the situation in their respective inspectorates so that the people may know clearly what they are doing and that there be no overlapping or neglect of districts.

Another method that may prove advantageous to the rural schools is the sending of specialists in various departments on tour among the schools. It is not only possible to bring pupils to a central school; but it may well be desirable to bring specialist teachers to local schools.

It will undoubtedly be in many cases an advantage to have a larger administrative school area than the section. Consolidation would bring such larger area. The law at present provides for the formation of Township Boards of Trustees. This may prove the best method of facilitating consolidation. The township would not be an area too large for the retention of local interest and responsibility.

Still another factor in the solution of the rural school problem will be selection of women as trustees. This will be possible by legislation to be passed at the present session of Parliament. The presence of women on rural school boards will mean much for the brightening of school buildings and improved care for the children.

Industrial and Technical Schools

One of the most interesting and important of the reports which follow is that dealing with technical education. The Province has one of the best Indus-

trial and Technical Schools Acts in the world. It is based on the experience of many countries, but it is specially adapted to our Provincial needs. These schools are an integral part of our system. They are designed to provide a further type of specialized secondary school, analogous to the regular High School, the Commercial High School and the Agricultural High School. They are more than trade schools. They combine the elements of a good general secondary education with special technical training. We believe that such institutions should teach good citizenship as well as good workmanship and that the trained intelligence is as vital as technical skill. It is probable that the next great educational advance in our Province will be along the line of this specialized secondary school for our adolescents. The Act had just come into operation before the war put a restriction on all undertakings of an expensive character. Now this development will be resumed with keenest zest. The law already provides the machinery necessary for the erection and maintenance of these schools. The initiative in securing a school lies with the municipality where it is to be situated. The financial element has heretofore been the greatest difficulty in the way of advance. The Province has made larger grants to this class of schools than to any other. The legislative grants for technical education have been as follows:

1912-13	$126,527	1915-16	$113,260
1913-14	136,309	1916-17	137,332
1914-15	133,126		

These sums are, of course, in addition to the amounts spent by the municipalities. But still greater aid will be necessary if rapid and needed development is to take place. The Dominion Government has promised to give substantial aid to technical education. On the basis of work done and money expended, Ontario's share in any Federal Grant would be considerable. Then the money needed would be available. Each Technical and Industrial School would be the product of the joint contribution of the Dominion, the Province and the municipality. A rapid establishment of these schools in industrial centres may be looked for as soon as the financial aid is forthcoming.

These schools will not be rivals of the High Schools, but parallels to them. They will provide the necessary further education for the vast majority of boys and girls who after leaving the elementary schools do not go forward to professions but enter business and industry. The proper kind of education is as necessary for those who become business men and workers as for those who become professional men.

The Commercial Departments in our High Schools are already furnishing direct vocational training.

Raising the School Age

This provision of specialized and varied secondary schools is bound up with the question of the school age. It is increasingly recognized that, no matter what modifications may be made in the courses of study in elementary schools, it is impossible to teach under the age of 14 all that a boy or girl ought to learn for effective citizenship or for a life work. The attempt to do this has led to the charge of overloading the course. Over the whole English-speaking world this question of raising the school age is being discussed. The principle has already been accepted in the Adolescent School Act of this Province; but the principle has not yet been applied. From various industrial centres, where Technical Schools are likely to be established, comes the demand for compulsory adolescent

attendance. This question is ably discussed in Dr. Merchant's Report. In all likelihood the next step forward in urban centres of a certain size will be along the line of compulsory adolescent attendance, either whole time or part time, as circumstances require. The necessary accommodation, the specialized schools and the proper teachers must be provided, before such compulsory attendance could wisely be enforced. But things are moving rapidly in this direction. The rural situation is somewhat different; yet the Consolidated School may be the solution of this problem in the country. Only by further education can Canadians be fitted to compete successfully in the world markets of the future.

School Attendance

Constant effort is needed to secure the highest possible attendance of children under the age of 14. A new school attendance Act will seek to provide more adequately for the enforcement of school attendance. A Provincial Officer will be appointed to supervise the carrying out of the Act. School Attendance Officers should be appointed to cover the work in every part of the Province.

Health of the Children

The physical condition of pupils has much to do with the progress of their studies. If they are strong in body, they are more likely to be strong in mind. The fit body means increased power. Increased attention is being given by school authorities to the ventilation and sanitary condition of buildings. The advent of women on school boards will give a fresh impetus to this consideration. In every school there should be some provision for physical training. The cadet movement has played a great part in this development.

Many of the larger urban municipalities have made provision, as the law requires, for the medical and dental inspection of the children. During this current year, a medical and dental inspection will be made by this Department, working in conjunction with the Women's Institutes, more particularly in the smaller urban and the rural sections. Much of the Province can be covered even in one year. The result will be that we shall know the actual facts of the situation and those in charge of this work will succeed in the establishment of regular inspection in many localities. Local boards readily respond when the needs and advantages of this physical inspection and subsequent treatment are presented to them. We may well expect a great extension of this care for the physical welfare of the children in our schools. The physician, the dentist, the nurse will be looked on as educational factors almost as important as the teacher. In the future a real relationship will be established between home conditions, school conditions and work conditions. Neither at home nor in school nor at work must children and growing youth be subjected to conditions which impair the body and starve the soul.

Courses of Study

These are at present under careful consideration, with a view to revision, in the direction of simplification, thoroughness and interest. This applies to the courses in the elementary, secondary and Normal Schools. The text books in various subjects will be revised. Present contracts are expiring, and the changes wrought by the war call for fresh treatment of many subjects. Some lightening of the work in elementary grammar, arithmetic, and geography will leave room and time for more attention to reading, writing, spelling, literature, as well as to history—the great vehicle of patriotic instruction—morals and pre-vocational sub-

jects. The importance of the direct and indirect inculcation of sound moral and patriotic ideals cannot be overestimated. During the war, special manuals on the war and the great issues involved have been prepared and used in the schools. The children of Ontario have been well taught the essential principles of the struggle, the part Canada has played, and the meaning of the British Empire to the whole world.

The Teachers

The teacher after all holds the key to the educational citadel. On his or her personality largely depends the training of the child. Everything that tends to raise the status of the teaching profession makes directly for the improvement of education. On the teachers is being thrown to-day a burden which should be borne also by the other educational factors of the community—the home, the church, and the press. Heroically the teachers are seeking to respond to every good demand that is made upon them. They cannot teach well if they are in low spirits. Their task makes special drains on the nerves and on the very soul. They give *themselves* if they teach well. Salaries commensurate with their services, and their public recognition by the community as a most honourable profession, will increase their teaching power. The grants made by this Department are directly designed to encourage the payment of higher salaries. This Department will do all within its power to improve the remuneration and the status of the teaching profession.

Regulations are necessary in a great system like ours. Only so can a multitude be turned into an educational army. But rules and regulations are meant to help and not to hinder the development, the personality, the initiative, the resourcefulness of the individual teacher. Text books, in the same way, are meant to be instruments, and not tyrannical masters. The teacher who is a real power will be a teacher of the spirit and not of the letter. Our Normal and Model Schools and Faculties of Education are crucial in our system. As is their spirit, so largely will be the spirit of the whole teaching body. Their courses of study will probably be better adjusted to meet the demands of the situation.

Every opportunity will be afforded to returned soldiers to continue or to begin their work of preparation for the teaching profession.

The Inspectors

Under our system, the Public and Separate School Inspectors occupy a position of pivotal importance. They, more than any other factors in the educational problem, can help or hinder. The work of an Inspector or Superintendent is not the work of a super-detective or a mere recorder of the observance of regulations. He is not primarily appointed to fill in reports. That is part of his work, but not the chief part. He is to be the helper, the counsellor, the inspirer, the encourager of the teachers under his care. He is to show them how to teach better. If he is not in close and sympathetic touch with the work of the elementary school, if he never teaches a lesson in the school himself, then he is not a true Superintendent. He is the real eye of the educational system. He should be always on the lookout for possible development in his inspectorate. He will have a large field in connection with school consolidations, in seeing that adequate salaries are paid, in maintaining school attendance, in furthering the teaching of agriculture, manual training and household science. There is a widespread feeling that Inspectors would do their work more efficiently if they were appointed and paid by the Department. If that condition came about, the

various detailed qualifications now prescribed for Inspectors' certificates could be omitted, and appointments could be freely made from among those men, who by adequate educational training, experience of teaching, and force of character are best qualified to be educational leaders. This would be centralization at a point where centralization is necessary for efficiency; but it could then be safely accompanied by a diminution of detailed regulations and increased local responsibility. In England and Scotland, the central authority appoints the Inspectors, and then allows very considerable latitude to local authorities. In our Provincial system, so far as industrial and technical courses are concerned, the widest liberty is given to the local board to devise such as are best adapted to serve the needs of the particular community. Both centralization and decentralization are needed in our system.

The Trustees

Trustees as the elected custodians of educational interests in each locality are clothed with much power under our system. Their opportunities to help the teachers and the school are boundless. They are the link which should bind the teachers to the whole community. Women as trustees can render a special service in this respect. It will be the ambition of the efficient and conscientious trustee to secure the best teacher available, to pay the best salary possible, to have the best equipped school building, to be the personal friend of teachers and scholars. In connection with the payment of teachers' salaries it might be suggested that monthly payments would be of great practical help to many teachers.

Public Libraries

The public library is developing into a powerful teaching agency. It continues education into the adult stage. It may be used by teachers and others as a means of popular educational extension work in the community. The new idea in the public library of to-day is the aggressive idea. The public library tries to get the right book to the right reader at the right time. It invites the community to read, and to read the best literature. The notable features of the modern public library in Ontario are the children's department, where the story hour is a feature, and the emphasis placed on the reference service, i.e., the library as a bureau of information.

Ontario has 408 public libraries—in proportion to population the largest number of any country, state or province in the world. Yet more than a million of the people of the Province have not access to a public library. Some of our public libraries are equal in efficiency to the best in any country, but most of them can be lifted in quality and efficiency. The grants from this Department have made possible the increase in the number of libraries. The greatest need is a development in the standard of service rendered by libraries. To accomplish this, the expert staff of the Library department is being increased and librarians' schools are being held in various parts of the Province. The Public Libraries Act is being recast with a view to making it possible for municipalities to make larger grants to libraries and with a view to devising better facilities for a free library system in the rural districts. The Consolidated School will again prove its value as becoming a centre of library work.

Personal Services

To my predecessor in this office, the Hon. Dr. Pyne, I would pay a tribute of sincere respect. His tenure of this office was marked by certain real advances

in educational policy. Grants from the Department were increased on condition of schools providing better equipment and higher salaries; teachers' salaries steadily rose; the standard of teachers' certificates was elevated; cheaper text books were provided; industrial and technical education was launched; and the Teachers' Superannuation Fund was established.

The Deputy Minister, Dr. Colquhoun, is one of the most efficient servants of the country. His sympathy with teachers, his accurate knowledge of the school situation in the whole Province and his unfailing courtesy make him an invaluable administrator.

The veteran Superintendent, Dr. John Seath, who has been in ill-health a great part of the year, has just passed away. He was the most outstanding figure in connection with the Provincial Educational System, a man of fearlessness and force, whose energies were wholly devoted to what he believed to be the best interests of the schools.

Ontario's Educational Ambition

This Province has a historic system of education. It was a pioneer in educational organization and extended the benefits of free elementary teaching to every child in the community. It is Ontario's ambition to keep her traditional position of primacy in all *sane* educational advance. The achievements of Canadian soldiers—half of whom came from this Province—bear witness to the high standard of intelligence among the youth of our land. Our aim is to keep this standard high—to train up a generation strong in body, disciplined in mind, skilled in hand, honest and reverent in soul—worthy citizens of this fair land. "Education," as Mr. H. A. L. Fisher has well said, "is the eternal debt which maturity owes to youth." We are seeking to pay this debt as generously as we can. For who can estimate the capacity and influence of a nation of thoroughly well educated, well disciplined, men and women!

Respectfully submitted,

H. J. Cody,
Minister of Education.

March 19th, 1919.

APPENDIX A

REPORT OF THE CHIEF INSPECTOR OF PUBLIC AND SEPARATE SCHOOLS

To the Honourable H. J. Cody, M.A., D.D., LL.D.,
Minister of Education for Ontario.

Sir,—I have the honour to submit, herewith, my report upon the Elementary Schools throughout the Province. The information is derived in part from the annual and special reports of the Public and Separate School Inspectors.

During the past year a good deal of attention has been devoted to three subjects:—

1st. The Consolidation of Rural Schools.

2nd. Medical and Dental Inspection.

3rd. A better and more effective means of putting into operation the requirements of the Truancy Act.

Consolidation of Schools

During the past summer and autumn meetings have been held at various points dealing with the subject of the Consolidation of Schools and the special conditions affecting the Province of Ontario in this regard. It was pointed out that there are three different types of Consolidated Schools:—

1st. Consolidation in the wealthier districts of Ontario for the purpose of uniting two or more vigorous rural schools to create a centre at which the pupils in attendance will be offered the advantages of some degree of secondary education and of special training in agriculture, manual training, and household science.

2nd. Consolidation in the poorer districts of Ontario for the purpose of uniting several weak rural schools under one or more teachers to secure economy and efficiency in educational administration.

3rd. Consolidation of a whole township in the newer districts of Ontario for the purpose of collecting children from a sparsely scattered area at one central school.

It is clear that the first type of school, conducted under consolidation, will cost from 30 to 40 per cent. more than under the present organization, at any rate, for the period during which the debentures for the new school plant are current.

Last September a circular letter was sent to all the rural school Inspectors, asking them to state what they believed to be the attitude of the general public towards consolidation. They were also asked to indicate local centres where consolidation would be in the interests of education. The answers returned show that the Inspectors are practically unanimous as to the desirability of establishing consolidated schools. In most cases they indicate localities where immediate consolidation would be feasible.

The attitude of the public, in the various inspectoral divisions, towards the proposal may be inferred from the following comments:—

"The present attitude of the public may be best described as one of inquiry. It is certain that there is very much more interest in the subject than there was a few years ago. Many of the more intelligent people are giving the matter a good deal of attention and are coming to regard it with more favour."

"The majority are opposed to consolidation for the reason that they do not understand its advantages and think the cost is beyond their reach."

"The attitude of the ratepayers is largely apathetic, and, unless the matter is skilfully presented, would become strongly opposed to any change in the present system."

"The greater part of the opposition could be overcome if the Government could offer substantial assistance in carrying out the experiment."

"If a vote of the people were to be taken at the present time there would be an overwhelming majority against consolidation, but it is certain that thoughtful men are beginning to favour the idea, and it is equally certain that, if an educational campaign were entered upon, meetings held, and the proper financial basis presented to the ratepayers, the consolidation idea would find more and more favour.

"Generally, the people of this county are sympathetic to the consolidation of public schools. This is particularly true of our leading farmers. Our population is largely rural, with essentially rural problems, and consolidation is needed in order that Secondary and Agricultural education may be given to our young people. We have an excellent High school at ————, but its graduates rarely return to the farm."

The principal objections reported are:—

1st. "An aversion to any interference with local independence, and sometimes an unwillingness to get away from the old system."

2nd. "Fearful of its cost and of the feasibility of transportation of pupils."

3rd. "The only objection against consolidation is the condition of the roads in winter and also in the early spring and late fall."

4th. "Our schools are too costly and of too recent date to hope that the people would now think of abandoning them."

On the whole the outlook for consolidation is favourable. The prospect of financial assistance from the Government, the educational propaganda being carried on by the Inspectors and others, the successful working of the system in neighbouring provinces and states, the changing social and economic conditions in rural districts, and the good sense of the people themselves, are all operating in favour of the movement for the consolidation of schools.

On the other hand, it must be carefully borne in mind that there are many districts in this Province where consolidation is either impracticable or unnecessary; and that grave disappointments may be the result of ill-considered plans for bringing it into operation.

The Inspectors in the Northern districts of Ontario are of the opinion that, except in a few favoured localities, consolidation would not be feasible on account of sparseness of settlement, lack of good roads, great distances for transportation, and the increased financial outlay involved.

Medical and Dental Inspection

In the rural districts no advantage has been taken of the Regulations for Medical and Dental Inspection, except in the counties of Peel and Lincoln. For over a year these Counties have each been employing a doctor and a nurse, appointed by the Department of Agriculture and acting under its authority. In Peel County, parents of children operated upon contributed a portion of the expenses. The Lincoln County Council gave grants of money in 1917 and 1918 to help defray expenses. In Prince Edward County, the Township of Hillier employs and pays the local Medical Health Officer to inspect the schools of the township twice a year.

All the cities in the Province, so far as reported, have made some provision for carrying on the work. Port Arthur, Sault Ste. Marie, and Windsor employ Medical

Inspectors. The Port Arthur officer is appointed by the City Council, which pays half his salary, the other half being paid by the Board of Education. The Sault Ste. Marie and Windsor officers are under the control of, and are paid by, the Board of Education. Brantford employs a dental officer who gives half his time to the schools. All the cities and a number of the large towns employ school nurses at salaries ranging from $550.00 to $1,000.00 per annum.

Truancy Act

The reported attendance of pupils in the schools of the Province indicates that further advances must be made before conditions can be regarded as entirely satisfactory. A comparison of the enrolment of the schools per annum and the average daily attendance in each seems, however, to have suggested to those unfamiliar with the conditions, certain wholly erroneous conclusions. In making any estimate based upon these figures, it is necessary to take into account certain factors. These are:—

1st. The moving of families from one school centre to another, so frequent especially in the industrial centres of the Province, which increases the enrolment and diminishes the average.

2nd. The computation of school averages against the number of legal teaching days, rather than against the number of days the school has been kept open.

3rd. Listing as full year pupils those who enter in the spring or fall, and those who leave at the close of the school year in June, e.g., successful High School Entrance candidates.

In estimating the effectiveness of the present Act, it must be remembered, too, that during the winter season and portions of the spring and fall, there are certain parts of the Province of Ontario where the schools are inaccessible by reason of weather conditions or the condition of the roads. The harvesting of small fruits in June and of the root crops in the early fall has also tended under war conditions to diminish the school attendance.

Practically all the cities and towns and a number of incorporated villages have truant officers, appointed in most cases by the Municipal Councils concerned. In the smaller towns and villages, the Chief of Police usually performs this duty.

In rural districts the Act is not, as a rule, effectively administered. The chief reasons for this are (1) the neglect of many township Councils to appoint and pay a truant officer, and (2) the unwillingness of local trustee boards to assume the responsibility of appointing a local officer through fear of creating ill feeling in the section.

Four counties are thoroughly organized for the carrying out of the Truancy Act. One of these has not only a county officer, but also township and urban officers. In these counties the Act is well administered.

The following quotations from Reports received need no comment:—

"Every municipality in this inspectorate, rural and urban, has appointed a truant officer. These officers have been faithful in the discharge of their duties."

"In the rural sections it seems to be impossible to get a responsible and reliable man who will accept the office or who will perform its duties if he accepts. The more sparsely settled a township is, the greater the difficulty."

"A few of the objections raised to the working of the present Act, are:—

1st. The appointment of officers is permissive with Councils.

2nd. Few local men will accept the office.

3rd. The Act does not state by whom the officers are to be paid.

4th. The Truancy Act would be more effective if it were obligatory on the part of Township Councils to appoint and pay the truant officers."

Inspection

The Districts of Northern Ontario have been reorganized, and two additional districts added to those previously set up. It is hoped that this redistribution will meet the growing needs of Northern Ontario and enable education to keep pace with the rapid material development of this area.

I am pleased to report that Mr. W. J. Chisholm, M.A., formerly a teacher in the Peterborough Normal School, who had previously served with distinction as a Public School Inspector in the County of Bruce, and who had been the representative for several years of the inspectoral body on the Educational Council, was appointed Assistant Chief Inspector on July 1st, 1918. His good judgment, ability and energy have been of invaluable service in carrying on the work of the office and in enlarging its sphere of usefulness.

It is with infinite regret that I have to record the death of Mr. J. W. Forrester, Public School Inspector for the County of Dundas. Mr. Forrester's devotion and talents were rapidly bringing him into the front rank, and his loss to education in the Province is difficult to estimate. Inspector Forrester has been replaced by Inspector H. B. Fetterly.

Mr. Clarke Moses, Public School Inspector for the County of Haldimand, after many years of useful service, resigned his position at the close of the calendar year. Inspector Moses has been replaced by Inspector J. L. Mitchener.

Since my last report the city of Toronto has lost the valuable and esteemed services of Inspectors W. F. Chapman and E. W. Bruce. They have been replaced by Inspectors N. S. Macdonald and Walter Bryce.

I have the honour to be,

Sir,

Your obedient servant,

JNO. WAUGH,

Chief Inspector of Public and Separate Schools.

Toronto, Jan. 28th, 1919.

APPENDIX B

REPORT OF THE DIRECTOR OF INDUSTRIAL AND TECHNICAL EDUCATION

To the Honourable H. J. Cody, M.A., D.D., LL.D.,

Minister of Education for Ontario.

Sir,—

I have the honour to submit herewith my Annual Report on Industrial and Technical Schools.

I have the honour to be, Sir.

Your obedient servant,

F. W. Merchant.

Toronto, February 8th, 1919.

Increase in Attendance at Night Schools

The statistical tables at the end of this report show a gratifying increase in the attendance at night schools. The increase is particularly marked in the schools at Chatham, Ottawa, Owen Sound, Pembroke, St. Catharines, Stratford, Toronto, Windsor, and Woodstock. While a constant increase in attendance has been maintained from year to year throughout the war, the increase, as was to be expected, was confined chiefly to the classes for women. The enrolment this year indicates a larger increase in men. Of a total increase of 1,316 for the academic year 1917-18, 749 were men and 567 women.

New Night Schools

New night schools were organized during the autumn at Almonte, Belleville, and North Bay. The Belleville Advisory Committee offers instruction in a wide range of subjects. Almonte is an important textile centre with four large woollen mills. The classes which have been organized are intended to meet more particularly the needs of those who are engaged in the textile industry. The classes at North Bay also have a very direct relation to local needs. North Bay is a railroad centre, and the apprentices from the railway shops constitute an important part of the attendance. They receive instruction in shop mathematics, applied mechanics, machine drawing and design. Classes for instruction in women's industries are formed in each of the new schools.

Nationalities of the Students in Attendance at Night Schools

The figures from year to year show a gradual change in the nationalities of those in attendance. In the early years of the night schools, from 60 per cent. to 70 per cent. of the attendance was made up of young men and women from the British Isles, and the proportion of Canadians was low. This was to be accounted for by the fact that night schools had been a recognized part of the educational system in Great Britain for many years, and workers continued in Canada a prac-

tice which was common in the Old Land of using these schools for improving their educational equipment. A gradual change is taking place and Canadians are acquiring the habit of attending night schools. Of the total attendance in 1917-18, 66.28 per cent. were Canadian born, 25.39 per cent. from the British Isles, and 8.32 per cent. from other countries.

Subjects of Instruction in Night Schools

The table giving the number of pupils in the various branches of instruction shows a somewhat marked difference in the character of the subjects taken by men and by women. Men in the industries apparently need most the elements of a general education and the theoretical subjects related to their occupations. The women, on the other hand, chiefly attend classes for practical subjects. The academic subject in greatest demand by men is arithmetic; then follow in order, English composition, reading and literature, shop mathematics, mechanical drawing, electricity, algebra and geometry, etc. Of the practical subjects for men, the largest enrolment is in automobile mechanics; the second in order is in steam and gas engines and power plant operation; and the third, in machine shop and forge shop work. Of the women's subjects, the greatest demand is for sewing and dressmaking; 2,925 pupils were enrolled in the dressmaking class during the year. Next to dressmaking, cooking is the most popular of the subjects for women. The table shows that 2,369 were enrolled in this department. About half as many received instruction in millinery.

Characteristic Features of the Ontario Type of Day Industrial and Technical Schools

The Ontario type of day industrial and technical schools has certain distinctive features which mark it out, on the one hand, from similar types of schools organized in other countries, and, on the other, from other types of schools within the Province.

The chief feature which distinguishes it from schools of the type in other countries is the stress which it places upon the essentials of a general education. The training demanded in English, mathematics, and science is the equivalent of that given in any of our High Schools. While less importance may be attached to the phases of mathematics and science that have a remote application, the courses include all that is essential to a complete understanding of the principles to be applied. This attention to the academic side of an education has been deliberately adopted after due consideration. A survey of the needs of the industries has made it abundantly clear that the lack of a general education is as frequently the cause of the failure of a worker to secure advancement as the lack of specialized knowledge or skill. Furthermore, the importance of developing well-informed and intelligent citizens should be as clearly recognized as that of the training of efficient workers.

The principle of organization of the day industrial school assumes that the ends I have mentioned are not necessarily contradictory and that both can be realized through a course of training which emphasizes the practical, but, at the same time, makes adequate provision for the broader requirements of a sound general education. There is a necessity for emphasizing this fact at the present time, because I find that an impression appears to have got abroad that these schools are in a very narrow sense trade preparatory schools and that a pupil who is considering the question of the selection of a school must choose between a general education as provided for in our High Schools and Collegiate Institutes and a narrow intensive course for an industrial employment. This is a mistake. Both ends may be reached through attendance at a day industrial school of the Ontario type.

The feature which distinguishes the day industrial schools from our other secondary schools is the attention given to practical training for industrial employments.

A pupil of Fourth Form standing in the Public Schools is not in a position to choose wisely an industrial vocation. Accordingly, the main purpose in the practical work for the first two years in the course of the day industrial school is to furnish a variety in experience which will serve as a basis for an intelligent choice of an industrial vocation. At this stage, no effort is made to give any direct instruction for a particular trade, but as far as possible, the courses, especially in mathematics and mechanical drawing, are selected because the subjects treated are of fundamental value in a variety of industrial employments. The pupil who drops out of school at the end of the second year's course but does not select an industrial employment has lost no time, because he is equipped with a good practical education which will be of value to him in any pursuit.

Where a four years' course is established, the advanced classes, as a rule, take specialized training for certain particular vocations. The chief distinction between the industrial and technical courses is made in the curriculum for the third and the fourth years. The industrial courses give attention to the requirements of trades, while the technical courses are especially adapted for those who are preparing for positions in which specialized knowledge of a technical character is required. No trade class, directly intended to take in full the place of apprenticeship, has been established in the Province.

Progress in Development of Day Industrial and Technical Schools

The day industrial and technical schools have now become firmly established as a part of the Provincial system of education. Substantial progress has been made in the development of these schools during the year. A new full-time day technical department has been established in connection with the High School at Sault Ste Marie. The part-time system, which has been in operation for several years in this school, is maintained. The statistical tables show a material increase in attendance in the other schools.

But it is too early even to begin to grow satisfied with what has been accomplished. The field for the day industrial or technical school is just beginning to be occupied. When we consider that at least 40 per cent. of the boys who are passing through the Public Schools in the urban centres of the Province become engaged in some form of industrial employment, and that the urgent demand of the industries is for a better educational equipment for workers, we begin to recognize the necessity for a very much fuller development of this type of school. The beginning which has been made has but shown the open door of opportunity.

But in discussing this question, industrial should not be confounded with vocational education. The attendance at day industrial and technical schools is by no means a measure of what the Province is doing in the way of adapting secondary education to meet vocational needs, because the commercial departments in our High Schools and Collegiate Institutes are essentially vocational schools. In fact, when proportionately as large an attendance is enrolled in industrial and technical schools and departments as is now registered in the commercial classes, we shall be approaching a solution of the problem of providing industrial training for the youth of the Province.

It is of interest to note that the organization for industrial and technical education is beginning to meet more nearly the needs of the situation in outlying centres of population than in any of our larger urban centres. Take Haileybury as

an example. In this town about 70 per cent. of the boys who have passed through the High Schools in late years have found employment in some form of the mining industries. At present, about 60 per cent. of the boys in attendance at the High School are enrolled in the mining department. The number of boys in attendance at the mining department of the Sudbury High School also bears a close relation to the number entering the industry.

The Development of the Courses of Study in the Day and Night Industrial and Technical Schools

The courses of study, on both the theoretical and the practical side, are, more or less, in a formative condition. The Department of Education does not, as in the case of the Public Schools and the High Schools, prescribe set courses. The members of the various staffs are expected to study industrial requirements and to develop courses which will meet the special needs of their classes.

The chief difficulties in securing satisfactory courses arise from the fact that the teachers who have been trained along professional and academic lines have usually an inadequate conception of industrial problems, and practical men in the industries, who have been in the habit of regarding their work solely from the standpoint of production, find difficulty in organizing it for the purpose of effective teaching.

The difficulties mentioned cannot be overcome at once. The academic teachers who have charge of the theoretical work are being encouraged to make a careful survey of the practical side of their courses in industrial establishments and to adapt their instruction, especially in mathematics and in science, to the more particular requirements of industries. The practical men in the trades who have taken up the work of teaching are required in our teacher-training classes to analyze their jobs and to arrange the elements with a view of presenting them in logical order to pupils.

We have been sending out, from time to time, in the form of circular letters to Principals, suggestive outlines of courses in such subjects as machine drawing, shop mathematics, and sheet-metal work. We have been assured that these have been of value, especially to teachers who are beginners. We hope to extend this practice; but it is evident that courses never can be absolutely standardized.

Studies of Industries and Employments—Provisions for a Closer Co-ordination of Schools and Industries

In order to perfect plans for bringing about a closer co-ordination of schools and industries, there is a necessity at the present time for a detailed study of industrial occupations with a view of determining with greater exactness the form of education necessary for promoting industries and fitting men and women for employments. Ontario has a great variety of industries of a more or less specialized class, and schools which have been organized in accordance with types found in other countries are not completely meeting our needs. Moreover, the war has caused disturbed industrial conditions, and a special study of the situation is needed in order to provide the organization necessary for reconstruction. Provision has been made by the Department of Education for such an extension of the office staff as will make it possible to begin such a study.

This study will cover the general industrial and technical educational requirements of the men and women engaged in important industries and trades, such as the mining industry, the textile industry, the pulp and paper industry, the steel industry, the building trades, etc., with a view of making constructive recommendations regarding the organization of education to provide better trained workers for

these industries and trades. It will also include a survey of the industrial establishments in the more important industrial centres with the purpose, first, of finding out the nature of the employments and the character of the training that those employed require for improvement and advancement; and, second, of conferring with the employees, studying their individual needs, and guiding them into suitable courses of study.

Teacher-Training and the Certification of Teachers

The regulations governing the qualifications and certification of vocational teachers for day and night industrial and technical schools have been amended with a view of attracting a larger number of those who have been trained in the industries to take up permanently the work of teaching and of encouraging them to fit themselves for this vocation. The Department of Education now grants interim certificates, to be made permanent at the end of a period of successful teaching, to candidates who have had approved technical training or trade experience and who have taken approved teacher-training courses.

To enable teachers to qualify under these regulations evening teacher-training classes have been opened up in Toronto, Hamilton, and London. A large number of the teachers engaged in the schools in these cities are registered for a two years' course. The course of training includes instruction in the general principles of education, with their application to technical and trade subjects, the analysis of trade operations and requirements, the construction of suitable courses of study, the development of lesson plans, and exercises in practical teaching with criticisms.

Although the effort is being made in this way to secure a body of well-trained permanent teachers, the intention is not to restrict local boards in engaging temporarily practical men and women as teachers of vocational subjects. Temporary certificates will be granted freely to those who have approved technical training or trade experience and who can furnish evidence of possessing the essentials of a fair English education. These certificates are granted on the application of a board of trustees to the Department.

Progress in Providing Buildings and Equipment

Possibly the best evidence of permanent advance in the organization of industrial and technical education in the Province is the activity of municipalities in providing buildings and equipment for industrial and technical education. Satisfactory progress has been made in this direction during the present year.

The London Board of Education has just opened one of the best buildings of its kind on the continent. It is especially adapted to meet the needs of a community of the size of London.

The class-rooms, laboratories, and shops are arranged along the outside walls. The lighting is effected by groups of large windows on one side only, in accordance with the established practice in school buildings. The class-rooms are entered from spacious corridors at the inner sides.

The workshops include a machine shop, a general wood-working shop, and shops for plumbing and sanitary engineering, electrical construction, gasoline engines and auto mechanics, building construction, printing, tailoring, and workrooms for all departments of women's work, including power machinery operating, dressmaking, millinery, embroidery, and housekeeping.

There are laboratories for chemistry, general physics, electricity, and dynamo and motor testing. These laboratories are complete in all their appointments.

The plan provides for a large auditorium, a gymnasium, and a swimming pool, but owing to the necessity for war-time economy, they are not included in the present building. Provision is made in the construction for carrying out the completed scheme at a later date.

I would advise all who are thinking of building or of improving their present accommodations to visit this school.

A mining building to furnish accommodation for the practical work of the mining students of the Haileybury High School was completed in September. It is a two-storey structure of brick and steel, sixty feet by thirty-five feet, standing in the school grounds. Besides a very complete milling plant, it contains an assay laboratory, a chemical laboratory, a woodworking shop, and a machine shop.

The mill is a continuous, small-unit plant and is so well designed that it would be difficult to improve upon it for purposes of teaching and of making commercial tests on a variety of ores. Its equipment includes the most approved appliances for crushing, amalgamating, concentrating, and cyaniding, and the lay-out is such that the continuous treatment of an ore by any desired combination of these may be readily effected.

The mill is designed for a capacity of one ton a day. The equipment consists of the following: Blake crusher, rolls, trommel, three-stamp battery with amalgamating plate, Dorr classifier, tube-mill; jigs, Wilfley table, Deister table, Callow flotation plant, sand leaching plant, Dorr thickener, slime agitation tanks, Oliver filter, filter press, zinc boxes, zinc dust precipitation plant, and the necessary pumps, storage vats, etc. All the machinery is electrically driven.

In addition, there is an equipment of miniature apparatus for small tests: jig, concentrating table, flotation machine, agitator, etc.

The importance that the mining men of the district attach to the training of the boys along mining lines has been amply demonstrated. A very considerable part of the equipment of the mill was donated by mining companies of Cobalt and by the manufacturers; the designing of the plant and the installation of the machinery were closely supervised by Messrs. F. D. Reid, J. J. Denny, and M. F. Fairlie; and a large part of the work of erecting the machinery was carried out by expert workmen whose services could ill be spared from the mines at the time.

The Ottawa Board has in course of erection a large building as an annex to the present technical school. It will provide for laboratories and for a number of additional shops. When this building is completed, the Ottawa Technical School will have an adequate equipment for all departments of work.

The city of Hamilton has purchased a new site and has entered upon an extensive plan for the building of a new technical school to consist of a central building for administration, connected with a number of semi-detached units. One of the units is in process of construction.

Resignation of the Assistant Director

The Provincial staffs have suffered a decided loss in the resignation of the Assistant Director, Mr. G. J. MacKay. He has taken an important part during the last two years in organizing and improving the industrial and technical schools. To him, in great measure, is due the credit for the recent developments in the night-school system and for establishing on a solid basis the mining departments of the High Schools at Haileybury and Sudbury. But Mr. MacKay's services are not to be lost to the wider movement for technical education in the Province. He resigned his position to accept the chair of metallurgy in the Faculty of Applied Science at Queen's University.

Reconstruction and Education

Men in every department of life are discussing plans for after-war reconstruction. The discussions bear upon every phase of national interest and activity. Of all the plans proposed, there is not a single one which does not depend upon human purpose, intelligence, and judgment for its conception and value, and upon the application of human knowledge, skill, and integrity for its realization. Now purpose, knowledge, intelligence, judgment, skill, and integrity are not bestowed upon us in fixed quantities. Their sources are to be found in the possibilities for development latent in the capacities of the children born to the nation, and the measure available will depend upon the character and the extent of the development of these capacities. We are beginning to realize, therefore, that the most fundamental of all problems of reconstruction is the educational problem. Hence it is that educational aims, means, and results are receiving everywhere careful examination.

Some Educational Problems in Reconstruction

The discussions are being concerned with every department of elementary, secondary, and higher education, and recommendations, more or less radical, are being proposed. A careful survey of all these discussions shows that, while many plans are being proposed for the improvement of elementary and secondary schools and for the advancement of University education, especially along research lines, there is a singular unanimity in laying special stress on the necessities for the universal training of the youth during the period of adolescence and for laying emphasis in that training upon two main factors, first upon the development of the essential elements of sound character, and, second, upon a broad and liberal training for a life career in some useful vocation.

We have had the most striking proof in the world's history of the necessity for the union of these two factors in national character. We have seen the possibility of combining efficiency with debased moral standards; but we have seen also that high ideals and effective achievements are not necessarily the accompaniments of inefficiency.

Necessity for Training During the Period of Adolescence

Rightly or wrongly, the schools are being looked to, on the one hand, for the development of the character of the youth and, on the other, for a training in efficiency. If the schools are to accept the responsibility, the possibilities and limitations should be clearly recognized, and the conditions of attendance and organization should be such as to make it possible to realize these ends.

The elementary school has an important function to play in character formation, because the tendency to conceive and to realize ends begins with the spontaneity of the infant in the kindergarten and is nurtured by intelligent and sympathetic methods in dealing at every stage with every question, exercise, and problem presented to the learner: the teacher who throws his pupil during the earlier stages on his own responsibility, and leads him to work from interest and motive, is laying the foundation for a purposeful life. Yet if the child's schooling closes at the end of the elementary school period, the chief opportunity for character direction is lost to the school, because the significant aims and purposes of life do not begin to take shape until the youth enters upon the period of adolescence. If the school is to be held responsible in a large measure for the development of national character, it follows that it must take an important part in guiding and controlling the youth during this critical and formative period.

On the efficiency side, too, the training given in an elementary school cannot be said to be sufficient, whether the question is regarded from the standpoint of the academic training necessary as a basis of civic intelligence or from the standpoint of an adequate educational equipment for useful service in a commercial, agricultural, or industrial vocation. This statement is not to be construed as a reflection on elementary school systems; much of what has been demanded of the elementary schools in this and other countries cannot be realized in any system, however perfect, within the present age limitations of compulsory attendance. Most of the criticisms levelled at the elementary schools have resulted from a failure to realize the actual possibilities of education within this period, and many of the mistakes in school organization, especially in the line of congesting courses of study, have been made in the endeavour to modify school conditions to meet such criticisms.

These considerations have turned the minds of those who are looking to education as a means for moral and social advancement to the importance of utilizing much more fully the period between fourteen and eighteen years of age for the training of the youth. Attention has been drawn particularly to what secondary schools have accomplished for the very small fraction of the youth of the country who have been fortunate enough to continue their education in such institutions. The necessity for making some form of advanced training more universal is becoming very generally realized in all countries.

Plans for Extending Period of Education

How shall the period of education be extended for all children? This is probably the leading educational problem that the progress of the times is forcing upon the attention of educators and administrators. Several solutions have been proposed and a variety of experiments have been undertaken. Roughly speaking, these solutions and experiments fall into two classes, first, voluntary plans; second, compulsory schemes for extending the period of full-time or part-time schooling beyond present limitations. Naturally, voluntary plans were the first to be tried. By giving a deeper interest to school studies it has been sought to induce a larger proportion of children to extend their education. The efforts have been directed mainly along two lines. The curriculum of the elementary school has been enriched by connecting the traditional subjects in a more vital way with typical forms of life's activities, and an appeal has been made to the natural impulse of the youth for a life career, in the organization of a new type of school, which is intended to bridge the gulf between the elementary schools and employments. In these two ways, by vitalizing the curriculum of the elementary schools and by the organization of vocational schools, the effort has been made to extend the period of education for an increased number of children. But these plans have been found to be exceedingly slow in their operation. They may raise by a few points the percentage of attendance at secondary schools, but as a means of reversing the figures and changing the eighty or ninety per cent. of non-attendance to a corresponding percentage of attendance at advanced classes, they must be regarded as a failure.

The causes which lead children to drop out of school at the early stages continue to operate in spite of the attractions of more interesting courses of study. The necessity for earning a livelihood is forced upon a number of children at an early age, and possibly the natural desire for an adventure into the life of the adult and for the independence which employment gives causes even a larger number to leave school than economic pressure. These causes are effective even when distaste for school is removed.

It is now very generally conceded that the only adequate means of carrying out any comprehensive scheme for the further extension of general education is through some form of compulsory legislation. Legislation of this kind either has been adopted or is being considered by educational administrators in most countries where advanced systems are established.

Provision in Ontario for Compulsory School Attendance of Adolescents

Ontario was among the first of the British communities to accept the principle of compulsion. The Adolescent School Attendance Act, which provides for local option in compulsory attendance, was passed in 1912 and amended in 1916. As yet, no municipality has adopted and enforced the Act. A single municipality appears to be loath to accept the responsibility for a radical change in policy and to provide the necessary school accommodation for the increased attendance. The same conditions appear in other countries where similar permissive legislation has been adopted. As far as I am aware, Boston, Mass., is the only municipality that has taken advantage of and enforced effectually a permissive law.

But this much, at any rate, has been accomplished in Ontario: the question of compulsory attendance has been brought prominently before Boards of Education, and it has been receiving careful consideration in many parts of the Province. The passing of the Fisher Bill in England has stimulated discussion. As an evidence of the awakened interest in this subject, we are receiving in the office constant inquiries regarding the provisions of the Fisher Bill and of compulsory legislation in other countries. To furnish a general answer to such inquiries, I submit the following summaries of the legislation bearing on this subject in Great Britain and the United States. I omit the provisions of the Ontario Adolescent School Attendance Act, because a copy of this Act can be secured from the Department of Education at any time. It is published in Schools Acts and Amendments of 1916. The facts regarding the United States have, in the main, been reprinted from a summary, published in Bulletin No. 19, issued by the Federal Board for Vocational Education, Washington.

Provision for Compulsory Attendance in England. The Fisher Bill

The provisions of the Fisher Bill, in so far as they relate to compulsory attendance at schools, may be summarized as follows:

The bill provides for compulsory full-time education of all pupils to fourteen years of age. The period may be extended by a local board to fifteen years by passing a by-law for this purpose, and such a board has power to grant exemptions for pupils between fourteen and fifteen years of age.

No child under twelve years of age may be employed in any capacity. A child over twelve years of age may not be employed on any day on which he is required to attend school before the close of school hours, nor before 6 a.m. or after 8 p.m.

Youths between fourteen and eighteen years of age shall attend continuation schools during the daytime for three hundred and twenty hours a year; that is, eight hours a week for forty weeks. But any young person who is above the age of sixteen years and either (*a*) has passed the matriculation examination of a university of the United Kingdom or an examination recognized by the Board of Education, which corresponds to our Department of Education, as equivalent thereto; or (*b*) is shown to the satisfaction of the local education authority to have been up to the age of sixteen under full-time instruction in a school recognized by the Board of

Education as efficient, or under suitable and efficient full-time instruction in some other manner, shall be exempt from the obligation to attend continuation schools under the Act.

It is provided that (*a*) the obligation to attend continuation schools shall not, within a period of seven years from the appointed day on which the provisions of the law come into force, apply to young persons between the ages of sixteen and eighteen, nor after that period to any young person who has attained the age of sixteen before the expiration of that period; and (*b*) during the like period, if the local education authority so resolve, the number of hours for which a young person may be required to attend continuation schools in any year shall be two hundred and eighty instead of three hundred and twenty.

Employers may be required to suspend a pupil's employment, not only during the period for which he is required to attend school, but also for such additional time, not exceeding two hours, as is necessary to place the pupil in a fit mental and physical condition to receive the full benefit from attendance at school.

A part of the education provided in continuation schools must consist of physical instruction.

A fine of five shillings may be imposed upon a young person who fails to attend a continuation school, and a fine, not exceeding two pounds, may be imposed upon a parent who attempts to evade the Act.

Local educational authorities, either separately, or in co-operation with other local educational authorities, are required to establish and maintain free continuation schools with suitable courses of instruction and physical training, but all plans must be submitted to the Board of Education for approval. This Board has final supervision.

Scotch Education Act of 1918

The Scotch Education Act of 1918 fixes the limit of compulsory full-time attendance of children at elementary schools at fifteen years.

The Act provides that every education authority shall, after due inquiry and consultation with persons concerned in local crafts and industries, and with due regard to local circumstances generally, prepare and submit for the approval of the Department a scheme or schemes for the part-time instruction in continuation classes of all young persons, within the education area of the authority, who may under the Act be required to attend such classes.

Every education authority shall prepare and submit for the approval of the Department under this section, (1) within one year after the appointed day a scheme applicable to young persons under the age of sixteen years; and (2) as soon thereafter as the Department may require a scheme or schemes applicable to young persons of any age greater than sixteen but not exceeding eighteen years.

Every such scheme shall provide for, (1) instruction in the English language and literature, and in such other parts of a general education as may be deemed desirable; (2) special instruction conducive to the efficiency of young persons in the employment in which they are engaged or propose to be engaged; and (3) instruction in physical exercises adapted to age and physique.

The instruction given in continuation classes under any such scheme shall amount for each young person to an aggregate of at least three hundred and twenty hours of attendance in each year distributed as regards times and seasons as may best suit the circumstances of each locality.

The obligation to attend continuation classes under any such scheme shall not apply to any young persons who (1) are in full-time attendance at a recognized

primary, intermediate, or secondary school; or (2) are shown to the satisfaction of the education authority to be receiving suitable and efficient instruction in some other manner; or, (3) have been in full-time attendance at a recognized intermediate or secondary school until the close of the school session in which they have attained the age of seventeen years and are certified by the school authorities to have completed the post-intermediate course; or (4) have attained the age of seventeen years and are shown to the satisfaction of the education authority to have completed a course of instruction equivalent in value to the post-intermediate course.

The obligation to attend continuation classes under any such scheme shall not, within a period of three years from the appointed day on which the provisions of the law come into force, apply to young persons between the ages of sixteen and eighteen, nor after such period to any young person who has attained the age of sixteen before the expiration of that period.

Whenever a scheme has been approved by the Department, the education authority shall, in such manner as the Department may by order prescribe, require every young person to whom the obligation to attend continuation classes under such scheme applies to attend with due regularity for instruction in accordance with the scheme at such times and places as the education authority may appoint.

Every employer of labour shall afford to every young person in his employment any opportunity necessary for attendance at continuation classes in accordance with the requirements of the education authority.

Minnesota Compulsory Attendance Law

Every child between eight and sixteen years of age shall attend a public school or a private school, in each year during the entire time the public schools of the district in which the child resides are in session: provided, that in districts where the entire term of school is of unequal length in different schools such child shall be required to attend school as herein provided during at least the entire time of the shorter term.

Such child may be excused from attendance upon an application of his parent, guardian, or other person having control of such child, to any member of the school board, truant officer, principal, or city superintendent, for the whole or any part of such period, by the school board of the district in which the child resides, upon its being shown to the satisfaction of such board:

1. That such child's bodily or mental condition is such as to prevent his attendance at school or application to study for the period required; or

2. That such child has already completed the studies ordinarily required in the eighth grade; or

3. That there is no public school within reasonable distance of his residence, or that conditions of weather and travel make it impossible for the child to attend; provided, first, that any child fourteen years of age or over, whose help may be required in any permitted occupation in or about the home of his parent or guardian may be excused from attendance between April 1st and November 1st in any year; but this proviso shall not apply to any cities of the first and second class; provided, second, that nothing in this Act shall, be construed to prevent a child from being absent from school on such days as said child attends upon instruction according to the ordinances of some church.

The clerk, or any authorized officer of the school board, shall issue and keep a record of such excuses, under such rules as the board may from time to time establish.

Wisconsin Compulsory Attendance Law

In 1911 Wisconsin passed a law making it compulsory for all employed children between the ages of fourteen and sixteen to attend a part-time school one-half day a week. The 1916 report shows that this law has been modified so that all children between seven and fourteen years of age and between fourteen and sixteen, when not employed, must attend the all-day school; but that children between fourteen and sixteen who are regularly employed and who are living within two miles of a town school, or within the corporate limits of any city or village, and who are physically fit for such work, must attend the part-time school, if one is provided. The law further specifies that when twenty-five persons qualified to attend such instruction shall file a petition for such a school, the local board must establish the same, the courses to be approved by the State superintendent of education and by the State board of industrial education, and to be, like the other forms of industrial education, State aided. The Bray Act of 1917, while not modifying any of the above statements, has changed the hours of attendance and increased the age limit to seventeen years, so that at present pupils between fourteen and seventeen, must either attend an all-day school or else be regularly employed and in attendance upon a continuation school for eight hours per week for eight months of the year. It is provided also that permit pupils between the ages of sixteen and seventeen in part-time schools shall devote one-half of their time to practical work and one-half to related subjects and citizenship training; and it is further provided that only indentured apprentices and work-permit pupils between the ages of fourteen and eighteen years may be excused for any permanent employment.

Pennsylvania Compulsory Attendance Law

The State of Pennsylvania in 1915 passed the Cox Child Labour Act, which established continuation schools to extend general education and to give vocational and civic intelligence. These schools are for pupils between fourteen and sixteen years of age having work permits, with the exception of those in farm and domestic service. The law provides that these schools shall be established by school districts if more than twenty minors eligible to such schools are living in the district. The school session is the same number of weeks as that of the common school, and pupils may attend eight hours for one day per week or four hours each two days per week, or two hours each four days per week, or they may attend continuously, the total number of hours being eight times the number of weeks the common school is in session. These schools must be approved by the State superintendent of public instruction and be part of the free public school system. Furthermore, an employer may establish such a school in his plant for his own men, and attendance at such a school will be accepted by the law.

The general continuation school developed under this Act has a typical course which divides the time as follows: forty per cent. to academic subjects, thirty per cent. to fixed vocational subjects common to many industries, and thirty per cent. to variable vocational subjects. Abnormal labour conditions make figures useless, but the report of 1916 gave one hundred school districts with thirty-six thousand pupils in attendance upon part-time continuation schools.

Massachusetts Compulsory Attendance Law

The State of Massachusetts, by legislation enacted in 1911 and amended in 1913, provides that the school committee in any city or town may establish continuation schools for pupils between the ages of fourteen and sixteen who are

employed at least six hours a day, and they may establish these schools in the city or town where the children are living or in the city or town in which the children are employed. It is to be noted in this connection that the board may, not must, establish such schools, thus leaving the initiative with the board. Moreover, Massachusetts provides that the local board may, with the consent of the State board, compel attendance upon these schools of all children between the ages of fourteen and sixteen receiving certificates after the establishment of the school, provided they are not otherwise receiving equivalent instruction. Here again Massachusetts avoids State compulsion. The schools are to be in session not less than four hours per week, between eight o'clock in the morning and six o'clock in the afternoon; they are to be reckoned as part of the lawful working day, and the State pays half the net maintenance cost. Up to the present time Boston is the only city which has adopted compulsory continuation school attendance.

New York Compulsory Attendance Law

The State of New York, by legislation enacted in 1910 and amended in 1913, compels all children between seven and fourteen, or in towns of less than five thousand population, between eight and fourteen to attend a full-time school for one hundred and sixty days a year as a minimum. Children between fourteen and sixteen must do the same unless regularly employed with a work certificate. In such cases, in cities of the first and second class, these children must attend evening school for six hours a week for sixteen weeks if they have not completed the full elementary public school course. The law provides, further, that pupils between fourteen and sixteen when employed on certificate in any city or district where part-time and continuation schools have been established, and who are not graduates of the elementary school or its equivalent, may be compelled by the board of education to attend continuation school instruction for thirty-six weeks in the year, not less than four, nor more than eight hours a week, and between the hours of 8 a.m. and 5 p.m. This condition frees the pupils from the evening school requirement, and they are to present a certificate of attendance issued monthly. It is to be noted that the law leaves it with the board of education to determine whether such schools shall be established or not, and whether or not the attendance shall be compulsory.

Indiana Compulsory Attendance Law

The Indiana State law of 1916 provides that part-time classes for industrial, agricultural, and domestic science subjects may be established. The instruction must be complementary to day employment. Attendance is limited to persons over fourteen and under twenty-five years of age. When part-time classes are established, boards shall require attendance of youths between fourteen and sixteen years of age. Attendance must not be less than five hours per week between 8 a.m. and 5 p.m. So far as it has been possible to ascertain, a few classes are in operation under this law, including one for girls in South Bend.

Ohio Compulsory Attendance Law

The State of Ohio by legislation enacted in 1913 provides that boards of education may establish part-time schools to be attended by youths over fifteen and under sixteen years of age who are regularly employed. When such part-time schools have been established, attendance is mandatory. The instruction shall not exceed eight hours per week, and shall be given between 8 a.m. and 5 p.m. The Acts relative to child labour, restrictive employment, and hours of labour, are supplementary to this law in that State.

Questions to be Considered in Extending the Period of Compulsory Attendance

A study of the provisions of the laws I have outlined and of their operation suggests certain important questions that must be taken into account in considering any modifications of our requirements for the school attendance of adolescents and indicates the steps that have been taken to settle them. The remaining sections of this report refer to some of these questions.

The Responsibility for Initiative in Compulsory Systems

The English law, the Scotch law, and the laws of Pennsylvania and Minnesota provide for real compulsion; attendance at schools is fixed arbitrarily by the State and is independent of local initiative or control. In Massachusetts and New York, as in Ontario, responsibility for initiative is placed upon local boards. In Wisconsin, Indiana, and Ohio, compulsory attendance is conditioned upon the establishment of continuation schools; where schools are established, attendance is compulsory. In Indiana and Ohio, the organization of such schools is dependent upon local initiative, but in Wisconsin, if twenty-five persons qualified to attend, petition for a school, it must be established by a local board and, when established, attendance is compulsory upon all within the age limits.

Part-time or Full-time Education

The question as to whether compulsory laws should provide for full-time or part-time training has been very fully discussed and those who have given the subject consideration are divided in opinion, but the tendency is towards the approval of part-time systems. It will be observed that Minnesota is the only one of the States named which makes no provision for part-time schools. In this State the period of education for all has been extended from fourteen to sixteen under conditions which are somewhat elastic. The laws which provide for part-time education in England, Scotland, and in New York also include provisions for the extension of full-time education. In England, the extension of the full-time period is from thirteen to fourteen; in Scotland, from fourteen to fifteen; in New York, from fourteen to sixteen for children not employed on work certificates.

Methods of Enforcing Compulsory Attendance Laws

There are three general methods adopted for securing the observance of the compulsory attendance laws.

The first plan places the responsibility for attendance on the child and prescribes a penalty upon him for absenting himself from school without a satisfactory reason. The law imposes a fine in England upon the pupil as well as upon the parent; in Wisconsin, it is possible to arrest an absentee and to bring a charge of vagrancy against him.

The second plan places the responsibility for attendance of children on the parents and provides for fines, or imprisonment, or both, for parents who fail to send their children to school in accordance with the direction of the law. Provisions of this character are found in most compulsory laws.

A third plan makes it a criminal offence for any employer to give employment to a child within the age limits for compulsory attendance, except under the conditions provided by law.

Certain laws make provision for combinations of these plans for enforcement. A combination of the second and the third plans, which throws the responsibility on both the home and the employer, is the most common.

The satisfactory working of these schemes is dependent upon very close co-operation between school authorities and employers. Such co-operation is usually maintained through some scheme for the issuing of employment certificates or permits to workers who are compelled to attend part-time courses. For example, in Pennsylvania, a certificate is issued by the school authorities to the employer for the minor and not to the minor himself. In fact, the certificate never becomes the property of the minor. The employer must keep such certificates on file and accessible to attendance officers.

Types of Schools Needed to Carry Out Compulsory Education Provisions

This is a question in which school boards are very directly concerned, because wherever compulsory education is enacted, local authorities are expected to provide school accommodation and to establish courses of study.

The variety of attainments, requirements, and occupations of those brought into schools by the application of a compulsory attendance law necessitates the organization of schools and classes of varied types.

These types may be roughly divided into the following classes:

1. Classes for continuing general education:

One of the surprises of the application of compulsory laws has been the large number of young people found who needed the rudiments of an elementary education. With this class, most of the time must be directed to a training in the elementary subjects of the Public School course of study. This training is specially needed in centres where there is a proportionately large foreign element in the population.

It is found advisable also to devote a very large share of the school time of children between fourteen and sixteen to the subjects of a general education, even in the case of pupils who have had a fairly satisfactory Public School education. Real vocational training with children of this grade is, as a usual thing, not possible, because but a small fraction of the youth at this stage have fixed upon a vocation.

2. Commercial and trade preparatory classes:

A fairly large number of children in attendance at part-time compulsory schools are engaged in dead-end occupations that have but little or no promise for the future, and one of the functions which the compulsory continuation school has taken upon itself has been the preparation of such persons for a career in a more satisfactory calling. The classes organized for this purpose are necessarily of a vocational character. To take an example, on a visit to the Milwaukee Continuation School I was taken to a class in baking and I had an opportunity of talking with the boys. There were twenty in all. None were engaged in the baking business when at work out of school. Some were errand boys, some messengers, others cleaners, and so on; all were engaged in "blind alley" occupations. They were doing good work in the baking class. They told me that they liked the trade and expected to follow it when they left school. The Milwaukee system provides similar classes in a wide range of industrial and commercial occupations.

3. Commercial and trade extension classes:

The purpose of such classes is to supplement and to amplify the instruction which those engaged in a vocation are receiving from day to day in their employments. As a usual thing, the instruction is concerned with the more theoretical departments of the requirements of a vocation, while the practical side of the work is acquired in the shops. This type of school has been very popular. The reasons are apparent: the pupils appreciate the relationship of instruction to work.

It is understood that, while these may be regarded as types of schools and classes, the forms of instruction cannot be rigidly classified. For example, most systems provide, both in preparatory and extension courses, for a fairly wide range of what may be termed purely academic education, and all systems stress the importance of a training for citizenship. The English law is somewhat unique in the stress which it places on the importance of physical education and the necessity for conserving the vitality of the nation.

Necessity for Making Preparation in Advance for the Operation of a Compulsory Continuation School Law

The bringing into operation of a compulsory part-time system naturally disturbs the established order of employments, especially in commercial and industrial concerns. The absence from work at intervals of the young persons subject to the law upsets the ordinary routine of office or shop organization. But it is surprising how quickly establishments adjust themselves to conditions under a flexible system. In Pennsylvania, for example, during the first months of the operation of the law, most industries had provided satisfactory working arrangements. In a few cases firms refused to endeavour to conform to the law and threatened to dispense entirely with juvenile labour, but this disorganization was only temporary. The young workers were continued in their employments and time schedules were adjusted to meet the requirements of the Child Labour Law.

One of the chief conditions which has interfered with the successful operation of a compulsory continuation school law has been the inadequate accommodations provided for carrying on satisfactory courses. In fact, the work is still handicapped in such cities as Boston and Milwaukee, where laws have been in operation for several years. In each of these cities accommodation in the beginning was found for the classes by renting office flats in business centres of the city. On account of the variety in the types of the instruction to be given in compulsory continuation schools, the problem of providing accommodations for such schools differs materially from that of providing buildings and equipment for ordinary Public or High School education. Such schools should provide, as I have pointed out, for a fair measure of vocational, as well as for academic education, and the buildings and equipment should be adapted for this purpose. The centres of employment also affect the location of schools; in Boston, New York, and Philadelphia, the large departmental stores provide class rooms in their own buildings and the employees go from work to school without loss of time.

The facts I have mentioned show the necessity for making adequate preparation in advance for the application of a compulsory continuation school law. Where such provisions are not made, one of two results follows: either the law is not enforced and becomes eventually a dead letter or a host of children are taken from disorganized industries and handed over to school authorities who have made no provision for caring for their education. Both results are to be guarded against. The Fisher Bill provides adequately for such preparation. In fact, the suspension for a period of seven years of one of the important sections of the bill might almost appear to suggest indefinite postponement.

Criticisms of Part-time Systems

The criticisms of compulsory education have rarely, if ever, been directed against the principle of extending the education of the youth. They have had reference usually to the meagreness of the training which can be provided during short school periods at interrupted intervals. The answer to this objection made

by the advocates of the part-time principle was expressed by Mr. Fisher in his speech on August 10th, 1917, in introducing his Education Bill, when he said, "And here I may be asked whether the spell of eight hours a week, or 320 hours a year, is, in reality, sufficient to accomplish any substantial educational purpose, and why, the principle once admitted, a longer period has not been suggested. I need not say that on purely educational grounds I should have preferred a larger amount of instruction, even if that amount had been confined to the age between fourteen and sixteen, but, after careful consideration, I came to the conclusion that the practical obstacles were too great, that it would be difficult, if not impossible, for us to provide, in a reasonable length of time, the requisite supply of teachers of ability, that the scheme, if it is to be made accessible to the working people, would have to be supplemented by a very large expenditure in maintenance allowances and buildings, and that it would involve too great a disturbance of the juvenile labour market. At the same time, I should not like it to go abroad that I regard the period of eight hours a week either as ideal or as the necessary limit. I feel to the full the strength of the contention that young people, whatever may be their station in life, should primarily be regarded as subjects for education and not as parts of the industrial machine, and it may be that after the lapse of a few years it will become practicable, with the approval of Parliament, to extend the period of schooling in particular areas, or perhaps even for the whole juvenile population."

INDUSTRIAL, TECHNICAL

I. DAY

Statistics,

	Number of Teachers	Attendance						Number of whose head		
		Pupils on the roll for the year	New pupils admitted during the year	Boys on roll for the year	Girls on roll for the year	Days the school has been open	Average daily attendance for the year	Commerce	Agriculture	Law, medicine or the Church
1. Brantford Industrial School	5	9	6	9	.....	198	7	....	...	...
2. Chatham Industrial School	4	54	54	35	19	188	34	6	6	...
3. Haileybury, Mining Dep't of High School	5	19	8	19	.....	196	14	5	2	...
4. Hamilton Technical and Art School	21	453	164	323	130	200	420	47	9	4
5. Kingston, School of Navigation	4	11	.....	11	.....	30	8	....	...	...
6. London Industrial and Art School	8	94	68	55	39	193	58	....	...	...
7. Ottawa Technical School	15	397	397	55	342	213	55	21	2	9
8. Sault Ste. Marie, Technical Dep't of High School	1	6	6	6	.....	30	4	....	...	...
9. Sudbury, Mining Dep't of High School	3	19	7	19	.....	179	16	2	...	...
10. Toronto, Technical and Art School	64	2,581	1,830	1,516	1,065	188	1,408	365	35	75
11. Windsor Industrial School	2	31	31	17	14	187	24	9	...	1
Totals	132	3,674	2,571	2,065	1,609	.....	2,048	455	54	89

AND ART SCHOOLS

SCHOOLS

1917-1918

Pupils from families is occupied as below					Destination of pupils											Accom-modat'n		Religious and other exercises				
Teaching	The Trades	Labouring occupations	Other occupations	Without occupation	Commerce	Agriculture	Engineering professions	Mining or metallurgy	Draughting	Metal working trades	Printing or bookbinding	Industrial and applied arts	Photography, etc.	Housekeeping	Other occupations	Brick or stone school building	Size of the playground in acres	Schools using authorized Scripture readings	Schools using the Bible	Schools opened with prayer	Schools closed with prayer;	Schools having commencement exercises
1..	6	3	....	....	....	....	....	....	2	3	....	....	....	....	....	B	3	....	1	1	....	....
2..	24	7	11	....	4	4	....	....	....	3	....	9	....	4	11	B	1	....	1	1	....	1
3..	3	....	9	....	1	....	....	8	....	....	....	....	....	....	....	B	5½	....	....	1	....	1
4 2	206	19	120	46	....	....	....	....	....	....	....	....	....	....	....	B	....	....	....	....	....	1
5..	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
6..	....	....	....	....	17	4	....	....	1	6	....	3	....	8	16	B	....	1	1	1	....	....
7 4	33	1	325	2	6	5	....	....	1	3	1	....	....	8	6	S	....	....	1	1	....	....
8..	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
9 1	4	7	4	1	....	....	3	1	....	....	....	....	....	....	....	B	5	....	....	1	....	1
10 6	233	72	283	142	....	....	....	....	....	....	....	....	....	....	....	S	3	....	1	1	....	1
11..	7	7	7	....	4	....	....	....	....	....	....	2	....	2	9	B	3.14	1	....	1	....	1
13	516	116	759	191	32	13	3	9	4	15	1	14	....	22	42	....	....	2	5	8	....	6

INDUSTRIAL, TECHNICAL

I. DAY SCHOOLS

Statistics,

Number of Pupils in the

—	English Literature	Reading	Composition and Spelling	Grammar	History and Civics	Geography	Bookkeeping for Industrial purposes	Arithmetic	Algebra	Geometry	Shop Mathematics
1 Brantford Industrial School	9	9	9	....	9	9	....	9	9	9	....
2 Chatham Industrial School	54	54	54	54	54	54	....	54	35	35	....
3 Haileybury, Mining Dpt. of High School	16	5	16	....	16	16	....	16	16	16	....
4 Hamilton Technical and Art School	269	269	269	269	269	269	....	163	78	17	40
5 Kingston, School of Navigation	....	....	....	....	....	....	....	....	....	....	....
6 London Industrial and Art School	94	94	94	94	94	94	55	94	42	42	55
7 Ottawa Technical School	59	59	59	59	59	59	....	59	43	43	43
8 Sault Ste. Marie, Technical Department of High School	....	....	....	....	....	....	....	....	....	....	6
9 Sudbury, Mining Dept. of High School	18	7	18	7	18	12	....	12	19	12	6
10 Toronto, Technical and Art School	1227	1086	1211	1080	1211	1080	1211	1211	813	813	656
11 Windsor Industrial School	31	31	31	31	31	31	....	31	17	....	....
Totals	1777	1614	1761	1594	1761	1624	1266	1649	1072	987	806

Number of Pupils in the Various

—	Steam and Gas Engines and Power Plants	Electrical Machinery and Wiring	Printing and Bookbinding	Automobile Mechanics	Elementary Drawing	Colour Study	Lettering	Industrial Design	Illustrating	Drawing and Painting from Antique	Drawing and Painting from Still Life	Drawing and Painting from Life
1 Brantford Industrial School	....	....	....	....	9	....	....	....	....	....	....	....
2 Chatham Industrial School	....	....	....	....	54	19	54	....	....	....	....	....
3 Haileybury, Mining Dpt. of High School	....	....	....	....	....	....	18	....	....	....	....	....
4 Hamilton Technical and Art School	....	....	33	....	204	....	....	....	....	12	....	....
5 Kingston, School of Navigation	....	....	....	....	....	....	....	....	....	....	....	....
6 London Industrial and Art School	....	....	....	....	....	....	....	....	....	....	....	....
7 Ottawa Technical School	....	26	....	....	16	16	16	16	16	....	16	....
8 Sault Ste. Marie, Technical Department of High School	....	....	....	....	....	....	6	....	....	....	....	....
9 Sudbury, Mining Dept. of High School	....	....	....	....	....	....	....	....	....	....	....	....
10 Toronto, Technical and Art School	90	30	235	164	43	83	91	196	163	108	108	60
11 Windsor Industrial School	....	....	....	....	14	14	....	....	....	....	....	....
Totals	90	56	268	164	340	132	185	212	179	120	124	60

AND ART SCHOOLS—Continued

—Concluded

1917-1918

Various Branches of Instruction

	Surveying and Mapping	General Physics	Electricity	Applied Mechanics	General Chemistry	Chemistry of the Trades and Industries	Metallurgy and Assaying	Mineralogy and Geology	Mechanical Drawing	Machine Drawing and Design	Architectural Drawing	Sheet Metal Drawing	Machine Shop Work	Forge Work	General Wood Working	Joinery and Cabinet Making	Pattern Making	Carpentry and Building Construction	Painting and Decorating	Plumbing
1	..	9	....	....	....	....	....	....	9	....	....	....	9	9	9	....	....	....	....	..
2	..	....	....	....	....	....	....	....	35	35	....	....	....	....	35	....	....	35	....	..
3	16	19	14	16	18	18	18	18	19	19	....	....	18	16	16	....	....	....	....	..
4	..	56	80	....	68	....	....	....	294	....	3	....	94	....	....	63	40	2	....	..
5	..	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	..
6	..	55	55	....	....	....	....	....	55	55	....	....	....	....	55	....	....	....	....	..
7	..	43	26	....	....	....	....	....	55	....	43	....	....	....	71	71	....	....	....	..
8	..	....	....	....	....	....	....	....	6	....	....	....	....	....	....	....	....	....	....	..
9	7	5	6	6	19	7	7	17	11	11	....	....	....	....	....	....	....	....	....	..
10	..	1059	238	48	1195	83	....	16	627	82	82	341	180	98	418	27	219	48	10	16
11	..	17	....	....	....	....	....	....	17	....	....	....	....	....	17	....	....	....	....	..
	23	1263	419	70	1300	108	25	51	1128	202	128	341	301	123	621	161	259	85	10	16

Branches of Instruction.—Concluded

	Modelling	Pottery	History of Art	Cooking	Housekeeping	Home Economics	Home Nursing	Hygiene and Dietetics	Sewing and Dressmaking	Laundry	Millinery	Embroidery and Lace Making	French	German	Physical Culture	Latin	Welding	Motion Picture Operating	Trigonometry	Power Machine Operating
1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	9	....	....	....	....	....
2	....	....	....	19	19	19	19	19	19	19	....	....	....	....	54	....	....	....	....	....
3	....	....	....	....	....	....	....	....	....	....	....	....	....	....	16	....	....	....	14	....
4	....	....	....	52	....	....	....	....	63	....	59	....	76	....	51	....	....	....	....	....
5	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
6	....	....	....	39	39	39	39	39	39	39	39	39	24	....	94	....	....	....	....	....
7	....	....	....	250	16	16	....	16	67	16	44	....	16	....	59	....	....	....	....	....
8	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
9	....	....	....	....	....	....	....	....	....	....	....	....	....	....	19	....	....	....	12	....
10	133	29	83	558	54	284	88	134	538	61	304	16	543	158	1211	93	28	37	213	11
11	....	....	....	14	14	14	14	14	14	....	....	....	14	....	31	....	....	....	....	....
	133	29	83	932	142	372	160	222	740	135	446	55	673	158	1544	93	28	37	239	11

INDUSTRIAL, TECHNICAL

II. NIGHT

Statistics,

		Number of Teachers	Attendance							
			Pupils on the roll for the year	New pupils admitted during the year	Boys and men on roll for the year	Girls and women on roll for the year	Pupils whose birthplace is Canada	Pupils whose birthplace is the British Isles	Pupils who were born in other countries	Nights the school has been open
1	Arnprior	2	46	39	.....	46	46	.....	.....	24
2	Brantford	19	314	.....	179	135	183	118	13	33
3	Brockville	11	129	64	56	73	103	23	3	48
4	Chatham	20	331	278	105	226	291	33	7	82
5	Cobourg	9	100	76	33	67	77	20	3	70
6	Collingwood	7	54	35	17	37	50	1	3	48
7	Coniston	5	53	53	53	.....	36	15	2	77
8	Cornwall	3	40	30	.....	40	38	1	1	31
9	Dundas	7	94	65	49	45	57	31	6	93
10	Fort William	12	151	118	91	60	63	35	53	40
11	Galt	9	186	144	65	121	93	81	12	316
12	Gananoque	6	102	102	27	75	.....	.....	.....	23
13	Goderich	3	120	114	.....	120	114	6	.....	186
14	Guelph	15	305	242	99	206	216	73	16	64
15	Hamilton	31	701	.....	447	254	331	294	76	71
16	Ingersoll	5	81	53	40	41	71	8	2	48
17	Kitchener	12	116	.....	24	92	101	6	9	51
18	London	28	761	623	405	356	515	195	51	.....
19	Newmarket	5	74	65	32	42	46	28	.....	50
20	Niagara Falls	8	218	186	100	118	126	71	21	118
21	Ottawa	40	1,617	993	432	1,185	1,334	217	66	138
22	Owen Sound	12	215	178	65	150	193	20	2	102
23	Parry Sound	6	64	60	39	25	40	13	11	50
24	Pembroke	14	180	75	68	112	166	8	6	91
25	Peterborough	11	222	176	115	107	154	59	9	91
26	Port Arthur	14	308	.....	150	158	203	50	55	41
27	Renfrew	5	113	72	36	77	97	12	4	78
28	Sault Ste. Marie	12	201	165	132	69	135	33	33	75
29	St. Catharines	8	290	272	60	230	159	107	24	106
30	Stratford	9	205	115	106	99	119	79	7	100
31	Thorold	7	79	58	51	28	37	29	13	43
32	Toronto	159	6,130	2,452	2,504	3,626	3,714	1,866	550	118
33	Welland	7	70	65	37	33	49	15	6	38
34	Whitby	6	69	46	9	60	49	15	5	140
35	Windsor	18	637	600	358	279	414	92	131	85
36	Woodstock	12	221	194	127	94	188	27	6	41
	Totals	557	14,597	7,808	6,111	8,486	9,608	3,681	1,206	.....

AND ART SCHOOLS—Continued

SCHOOLS

1917-1918

Occupations of pupils on entering school

	Chemical Industries	Sheet Metal Work	Machine Shop Work	Forge Work	Foundry Work	Leather Work	Cabinet Making and Joinery	Carpentry and Building Construction	Painting and Decorating	Plumbing	Power Plant Operating	Electrical Work	Printing or Bookbinding	Photography, etc.	Other Trades	Art and Design	Women at work in factories	Women at work in shops and stores	House Workers	Housekeepers	Other Occupations	Without Occupation
1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
2	1	3	50	5	5	3	14	8	3	2	5	12	33	..	3	1	41	14	40	3	93	5
3	..	..	23	..	11	..	7	....	..	....	..	....	3	..	12	..	15	21	7	25	5	....
4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
6	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	3	4	28	55	9
7	..	7	5	..	..	..	..	..	..	..	..	..	..	..	14	..	2	6	5	13	2	....
8	..	10	10	1	..	..	..	4	..	1	5	11	..	..	11	..	..	..	..	..	..	..
9	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	4	10	18	6	....
10	..	1	21	..	..	..	2	..	..	..	..	..	1	..	23	..	17	2	..	18	8	1
11	2	..	7	..	3	..	2	4	..	..	..	9	3	..	30	..	..	8	7	27	49	....
12	1	2	30	..	12	3	2	..	..	..	..	1	..	..	1	..	36	5	13	53	27	....
13	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
14	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6	5	42	41	26	....
15	..	..	23	..	3	..	2	4	..	1	..	3	1	1	8	..	54	7	93	2	98	5
16	..	..	109	3	2	..	2	7	4	22	..	22	35	..	215	2	55	92	12	....	30	89
17	..	..	22	..	..	..	2	..	..	..	..	..	..	..	16	..	16	..	..	5	20	....
18	..	..	4	..	..	6	1	..	..	..	..	2	..	..	11	..	41	18	18	2	13	....
19	..	8	67	3	13	5	2	9	7	3	9	17	20	..	352	..	46	15	12	103	66	114
20	..	4	16	..	..	3	..	..	..	..	..	2	..	..	5	..	5	5	15	15	4	....
21	2	..	6	..	3	..	2	18	..	2	2	16	1	..	48	..	26	32	2	27	10	21
22	..	4	33	1	..	1	1	2	2	19	1	6	12	7	16	7	6	202	265	57	975	....
23	..	..	15	2	4	..	20	..	..	..	..	..	2	..	15	..	..	15	3	83	54	2
24	..	2	10	..	..	..	..	8	..	2	1	..	..	..	7	..	5	4	2	10	13	....
25	..	..	25	..	10	..	..	10	..	..	..	1	1	..	18	..	20	8	12	56	14	4
26	..	3	12	..	..	..	..	1	1	2	..	24	1	1	39	..	..	27	10	19	79	3
27	..	..	28	..	..	..	2	2	5	..	..	..	..	..	25	..	5	30	10	35	25	10
28	..	..	12	..	..	..	..	4	..	..	..	8	..	..	16	..	19	16	21	3	14	....
29	5	..	36	..	..	..	..	10	..	..	..	66	..	..	15	..	..	11	5	39	14	....
30	..	..	17	..	..	..	..	5	..	..	..	5	1	..	14	..	45	18	26	78	76	5
31	..	1	58	2	3	2	10	8	..	..	..	4	..	..	10	..	22	12	22	25	26	....
32	..	..	11	..	1	..	..	1	..	..	2	10	1	..	10	..	5	5	..	11	22	....
33	49	23	281	8	20	1	14	45	17	45	15	199	121	37	294	29	539	1,557	123	433	1,822	458
34	3	..	9	5	4	..	..	..	..	..	..	3	..	..	14	..	1	4	4	10	15	....
35	..	..	2	..	..	..	..	..	..	..	..	1	..	..	4	..	22	54	2	28	2	31
36	5	4	96	2	4	2	6	10	4	6	8	25	10	2	48	..	30	20	12	48	274	21
	2	9	12	..	..	..	6	11	2	....	7	....	2	..	42	..	10	13	5	37	49	14
	70	81	1,050	32	98	26	97	163	45	105	55	448	218	48	1,336	39	1091	2,233	802	1352	3,984	792

INDUSTRIAL, TECHNICAL

II. NIGHT

Statistics

Number of Pupils in the various

—	English Literature	Reading	Composition and Spelling	Grammar	History and Civics	Geography	Bookkeeping for Industrial Purposes	Arithmetic	Algebra	Geometry	Trigonometry	Shop Mathematics
1 Arnprior												
2 Brantford	47	47	47	47				47				19
3 Brockville	23		23	23				23	1	1		23
4 Chatham	60	50	60	42	42	42	42	60				9
5 Cobourg							12					
6 Collingwood												17
7 Coniston												52
8 Cornwall												
9 Dundas	39	39	39	39				63				19
10 Fort William		53	88	35	58		35	35				9
11 Galt								33	16		2	33
12 Gananoque	49		49	49				49				12
13 Goderich												
14 Guelph			20	20								
15 Hamilton			33	33				184	184	184	184	184
16 Ingersoll												26
17 Kitchener				15								21
18 London	188	188	188	188	188	188	188	188				37
19 Newmarket	25	25	25					25				
20 Niagara Falls							20					21
21 Ottawa	199	199	199	199				207	5			15
22 Owen Sound		10						44				8
23 Parry Sound			17					9				
24 Pembroke	36	36	36					36				24
25 Peterborough												62
26 Port Arthur	57	57	57	57			11	34				21
27 Renfrew							8					
28 Sault Ste. Marie				34				34	6			18
29 St. Catharines	19	19	19	19								35
30 Stratford			30					50	10			16
31 Thorold			9				8	9				
32 Toronto	734	734	734	734				898	548	548	57	548
33 Welland		14	14					14				
34 Whitby							18	6				
35 Windsor		34	95				29	61				25
36 Woodstock							28	7				
Totals	1,476	1,505	1,782	1,534	288	230	399	2,116	770	733	243	1,254

AND ART SCHOOLS—Continued

SCHOOLS—Continued

1917-1918

Branches of Instruction

	Basketry	General Physics	Electricity	Applied Mechanics	General Chemistry	Chemistry of the Trades and Industries	Mineralogy and Chemistry	Mechanical Drawing	Machine Drawing and Design	Naval Architecture	Architectural Drawing	Sheet Metal Drawing	Machine Shop Work	Forge Work	Foundry Work	General Woodworking	Cabinet Making and Joinery	Wood Carving
1	....	.....	.....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....	....
2	....	.....	34	....	....	....	....	27	....	....	9	3	11	24	....	24	.....	....
3	....	.....	11	....	....	11	....	6	....	....	....	....	....	....	....	24	.....	....
4	....	.....	.....	....	....	....	....	....	18	....	9	....	....	....	....	12	.....	....
5	....	.....	.....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....	...
6	....	.....	.....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....	....
7	....	.....	.....	....	....	....	....	30	....	....	....	....	....	....	....	....	.....	....
8	....	.....	.....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....	....
9	....	.....	7	19	....	....	....	19	19	....	....	....	....	....	....	....	.....	....
10	....	.....	9	10	20	2	....	10	10	....	....	....	....	....	....	....	.....	....
11	....	.....	13	....	....	....	....	33	....	....	....	....	....	....	....	13	.....	....
12	....	.....	.....	....	....	....	....	12	....	....	....	....	....	....	....	....	.....	....
13	....	.....	.....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....	....
14	....	.....	23	....	....	....	....	9	....	....	....	....	21	....	....	13	.....	....
15	....	.....	52	....	....	....	....	127	....	....	17	....	56	....	....	39	39	....
16	....	.....	.....	....	....	....	....	26	....	....	....	....	....	....	....	13	.....	16
17	15	.....	23	....	24	....	....	15	....	....	....	....	....	....	....	....	.....	....
18	....	.....	71	....	....	....	....	111	....	....	....	4	102	102	102	....	72	35
19	....	.....	.....	....	....	....	....	15	....	....	....	....	....	....	....	....	.....	....
20	....	.....	28	....	....	....	....	21	....	....	21	....	....	....	....	....	.....	....
21	....	.....	29	....	12	....	....	41	41	....	23	2	....	....	....	....	105	....
22	....	.....	.....	....	....	....	....	12	....	....	....	....	....	....	....	26	.....	....
23	....	.....	.....	....	....	....	....	24	....	....	....	....	....	....	....	....	.....	....
24	....	.....	.....	....	....	....	....	45	....	....	....	....	....	....	....	....	.....	....
25	....	.....	21	....	....	....	....	23	....	....	....	....	....	....	....	....	.....	....
26	....	.....	.....	....	....	....	16	20	....	13	....	....	....	....	....	16	.....	....
27	....	.....	.....	....	....	....	....	11	....	....	....	....	....	....	....	....	.....	....
28	....	....	66	31	....	....	....	18	....	....	....	....	....	....	....	....	.....	....
29	....	.....	17	....	....	....	....	21	....	....	....	....	....	....	....	....	.....	....
30	....	7	15	16	12	....	....	25	....	....	....	....	....	....	....	....	.....	....
31	....	.....	10	....	6	6	....	10	10	....	....	....	....	....	....	....	.....	....
32	....	.....	355	18	96	85	....	238	134	....	128	5	132	....	....	61	.....	....
33	....	.....	8	....	4	....	....	15	....	....	....	....	....	....	....	....	.....	....
34	....	.....	.....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....	....
35	....	.....	45	....	....	....	....	30	....	....	....	....	....	....	....	....	.....	....
36	....	.....	.....	....	....	....	....	10	....	....	....	....	37	37	....	....	10	....
	15	7	837	94	174	104	16	1004	232	13	207	14	359	163	102	241	226	51

INDUSTRIAL, TECHNICAL

II. NIGHT

Statistics

Number of Pupils in the various

—	Pattern Making	Carpentry and Building Construction	Plumbing	Steam and Gas Engines and Power Plants	Tool Making	Printing and Book-binding	Photography, Photo-engraving and Litho-graphy	Automobile Mechanics	Elementary Drawing	Colour Study	Lettering	Show Card Writing	Industrial Design
1 Arnprior													
2 Brantford		13						43					41
3 Brockville									6	5	5	3	
4 Chatham													24
5 Cobourg								43					
6 Collingwood													
7 Coniston													
8 Cornwall													
9 Dundas													
10 Fort William													
11 Galt													
12 Gananoque													
13 Goderich													
14 Guelph												18	
15 Hamilton	9		18			33			19		5		12
16 Ingersoll													
17 Kitchener													
18 London			17		27			97	32	32		23	
19 Newmarket													
20 Niagara Falls													
21 Ottawa			15					200	35		9	9	
22 Owen Sound													
23 Parry Sound													
24 Pembroke		7											
25 Peterborough								8				16	
26 Port Arthur													6
27 Renfrew													
28 Sault Ste. Marie		8											
29 St. Catharines													
30 Stratford													
31 Thorold													
32 Toronto		13	36	407		73	48	361	214	39	40	72	39
33 Welland													
34 Whitby													
35 Windsor								79					
36 Woodstock								90					
Totals	9	41	86	407	27	106	48	921	306	76	59	141	122

AND ART SCHOOLS—Concluded

SCHOOLS—Concluded

1917-1918

Branches of Instruction—Concluded

	Illustrating	Drawing and Painting from Antique	Drawing and Painting from Still Life	Drawing and Painting from Life	Modelling	Pottery	Cooking	Home Economics	Home Nursing and First aid	Hygiene and Dietetics	Sewing and Dress-making	Power Machine Operating	Millinery	Embroidery and Lace Making	French	Physical Culture	Telegraphy	Clay Working
1	..	....	....	....	....	....	.....	....	....	....	46	....	.....	....	....	....	....	....
2	..	....	....	....	....	....	71	....	....	....	81	....	28	....	....	....	....	....
3	..	3	....	3	....	....	27	....	....	....	35	....	41	....	5	18	....	....
4	..	....	....	....	....	....	40	....	63	....	30	....	21	....	....	....	51	....
5	..	....	....	....	....	....	26	....	....	....	8	....	8	....	....	14	....	....
6	..	....	....	....	....	....	14	....	....	....	14	....	9	....	....	....	....	....
7	..	....	....	....	....	....	.....	....	....	....	.....	....	.....	....	....	....	....	....
8	..	....	....	....	....	....	18	....	....	....	22	....	.....	....	....	....	....	....
9	..	....	....	....	....	....	13	....	....	....	18	....	.....	....	....	....	....	....
10	..	....	....	....	....	....	.....	....	....	....	17	....	9	....	....	....	5	....
11	..	....	....	....	....	....	11	....	....	....	102	....	18	....	....	....	....	....
12	..	....	....	....	....	....	.....	....	....	....	53	....	.....	....	....	....	....	....
13	..	....	....	....	....	....	19	....	....	....	54	....	47	....	....	....	....	....
14	..	....	....	....	....	....	30	....	90	....	48	....	19	....	....	....	14	....
15	8	5	5	6	4	....	70	....	....	....	117	....	113	....	....	....	....	....
16	..	....	....	....	....	....	.....	....	....	....	15	....	11	....	....	....	....	....
17	..	....	....	....	....	....	24	....	....	....	58	....	17	....	....	....	....	8
18	..	....	....	....	....	....	32	....	28	....	206	....	37	91	....	....	....	....
19	..	....	....	....	....	....	.....	....	....	....	29	....	10	....	....	....	....	....
20	..	....	....	....	....	....	53	53	....	....	18	....	17	....	....	....	....	....
21	2	43	43	....	....	....	437	....	....	....	281	....	194	....	....	....	....	....
22	..	....	....	....	....	....	65	....	....	....	.....	....	62	....	....	....	....	....
23	..	....	....	....	....	....	.....	....	....	....	24	....	.....	....	....	....	....	....
24	..	....	....	....	....	....	.....	....	....	....	83	....	57	....	....	....	....	....
25	..	....	....	....	....	....	61	....	....	....	65	....	27	....	....	....	....	....
26	..	....	....	....	....	....	15	....	....	....	37	....	15	....	....	....	....	....
27	..	....	....	....	....	....	.....	....	....	....	42	....	.....	....	....	52	....	....
28	..	....	....	....	....	....	27	....	....	....	22	....	25	....	....	....	....	....
29	..	....	....	....	....	....	.....	....	....	....	205	....	69	....	....	....	....	....
30	..	....	....	....	....	....	.....	27	....	....	40	....	13	....	....	....	....	....
31	..	....	....	....	....	....	.....	....	....	....	25	....	.....	....	....	....	....	....
32	43	68	174	34	46	45	1,246	128	399	38	925	54	518	71	407	595	....	....
33	..	....	....	....	....	....	25	....	....	....	23	....	.....	....	....	....	....	....
34	..	....	....	....	....	....	.....	....	....	....	39	....	22	....	....	....	....	....
35	..	....	....	....	....	....	21	....	....	....	102	....	21	....	18	155	....	....
36	..	....	....	....	....	....	15	....	....	....	41	....	17	....	....	....	....	....
	53	119	225	40	50	45	2,360	208	580	38	2,925	54	1,445	162	430	834	70	8

APPENDIX C

REPORTS OF THE INSPECTORS OF CONTINUATION SCHOOLS

I. REPORT OF INSPECTOR MILLS

To the Honourable H. J. Cody, M.A., D.D., LL.D.,
Minister of Education for Ontario.

Sir,—I have the honour to submit the following report on the Continuation Schools of the western part of the Province in my charge for the school year 1917-18.

In this district there are sixty-five schools classified as follows:—

Grade A Schools	(three teachers giving full time to the work)	2
" B "	(at least the full time of two teachers)	53
" C "	(i) the full time of one teacher and at least half the time of a second teacher	4
	(ii) the full time of one teacher	6
	Total	65

Qualifications of Teachers

In these schools there are one hundred and twenty-seven teachers, of whom thirty-seven are graduates of universities. In art, fifteen hold the specialist and fifty-three the elementary certificate. In physical culture, eight hold the specialist certificate and sixty-eight the elementary certificate. During the school year 1917-18 nine temporary certificates were issued to those who had attended the Summer Course in Art but failed on examination and three temporary certificates in art to teachers who had not attended or completed the course because of illness. It was necessary to issue thirteen temporary certificates in physical culture. No other temporary certificates were necessary.

Scarcity of Teachers

The most marked change in connection with these schools during the past year has been the rapid falling off in the number of teachers available for Continuation School work. There is now a decided scarcity of qualified teachers. This is due in part to the number of young men who have enlisted and to the number of young women who have accepted positions in some form of industrial or commercial life, but there is a much more important cause. Since the recent regulations were issued, very many teachers have made and are making every possible effort to secure positions on the staffs of High Schools, in order to prevent the expiration of their High School Assistant's certificate in 1920. These regulations, which after 1920 limit the issue of High School Assistants' certificates to graduates

of universities who have taken certain courses and to those who have two years' successful experience in High School work, have caused much dissatisfaction among our young teachers and will for several years limit the supply of teachers available for Continuation School work.

Proportion of Boys to Girls attending School

A considerable falling off in the number of boys in attendance at many schools during the past two years led me to look into the matter of the relative proportion of boys and girls in attendance at our secondary schools. As the results may be of interest I have tabulated them from the year 1911, the first year for which the attendance at Continuation Schools was kept separate from that at Public and High Schools. Table I gives the percentage attendance for boys and girls at Continuation Schools since 1911; Table II gives similar figures for all secondary schools, and Table III gives the percentage of attendance for boys and girls at High Schools and Collegiates since 1880.

Table I.—Continuation Schools

Year	Percentage of Boys	Percentage of Girls
1911	41.61	58.38
1912	41.	59.
1913	40.20	59.80
1914	40.77	59.23
1915	41.22	58.78
1916–17	38.94	61.05
1917–18	38.96	61.03

Table II.—All Secondary Schools

Year	Percentage of Boys	Percentage of Girls
1911	44.95	55.05
1912	45.21	54.78
1913	45.10	54.90
1914	45.79	54.21
1915	45.37	54.63
1916–17	42.22	57.78
1917–18	41.93	58.06

Table III.—Attendance in High Schools and Collegiates since 1880

Year	Percentage of Boys	Percentage of Girls	Year	Percentage of Boys	Percentage of Girls
1880	55.	45.	1907	45.49	54.51
1885	58.	42.	1908	46.16	53.83
1890	49.	51.	1909	47.66	52.33
1895	49.	51.	1910	46.59	53.4
1900	48.63	51.37	1911	45.54	54.45
1901	48.26	51.74	1912	46.	54.
1902	47.52	52.48	1913	45.9	54.1
1903	46.6	53.4	1914	46.62	53.37
1904	45.9	54.1	1915	46.07	53.93
1905	45.48	54.52	1916–17	42.79	57.20
1906	45.37	54.63	1917–18	42.45	57.54

The above tables show three things:

1. In the High Schools and Collegiates, where most of the attendance is drawn from the larger urban centres, the proportion of boys is considerably greater than in the Continuation Schools.

2. There has been a gradual decrease in the proportion of boys attending the Secondary Schools since 1880.

3. This decrease has been marked for the past two years.

(1) *Causes for Smaller Proportion of Boys in the Continuation Schools.*

Many causes contribute to prevent the rural child from getting a High School education. In towns the schools are close to the homes of the people, and there is, therefore, less expense in sending the children to school. The long distances rural pupils must walk to the country school in all kinds of weather and the bad roads prevent the regular attendance necessary to enable the pupil to reach the standard set for entrance to High Schools. Many rural children know of nothing beyond the Public School, and, even if they do, circumstances make it so impossible for them that the idea fails to stimulate them or their parents to better effort. The distance, the cost, the necessity for leaving home, and the difficulties to be overcome, combine to discourage both children and parents and prevent very many children in rural districts from receiving a High School education.

While the above difficulties apply equally to boys and girls, there are some causes that apply more directly to boys. For many years labour has been scarce on the farm and a boy old enough to go to High School can do a man's work. Also, I am convinced that many boys from rural homes do not get to High School because the course of study does not provide the education and training that many parents want for their boys. To send them to the High School would be the best possible means of weaning them from home and from the farm.

(2) *Causes of the Decrease in the Percentage of Boys.*

This decrease, in my opinion, is due to three main causes:—

(*a*) The rapid growth of industry and commerce has greatly increased the number and complexity of human activities, and the demand for skilled labour at attractive wages, that may be earned without a High School education, has attracted many from the country and town to the larger centres and has lessened the attraction to the so-called learned professions.

(*b*) The High School courses have not been adapted to the needs of that very large number of young people who decide to follow agricultural, industrial or commercial life. When the courses offered by our Secondary Schools are made to meet the needs of the youth of the localities in which these schools are situated, and by which they are largely maintained, and when these courses receive suitable recognition by the universities a much larger number of boys and girls will seek to take advantage of the opportunities offered.

(*c*) During this period it has become the custom for girls to prepare themselves to make their own living. Constantly increasing opportunities for profitable employment attract more and more girls from the homes, and the relatively low percentage of boys in our secondary schools is probably due not so much to a relative decrease in the number of boys seeking a High School education as to an increase in the number of girls.

(3) *Cause of the Marked Decrease of the Past Two Years.*

This decrease has been caused by the scarcity of labour that has resulted in unusually high wages, and by the campaigns that have been carried on to induce our young men to enlist, to work on the farms, or to engage in some form of war work. Under the influence of these campaigns and frequently against the wishes of their parents many school boys of from sixteen to eighteen enlisted and made their way as near the front line as they could get. Other boys even younger sought employment on farms, and after the summer's work on the farm they sought work

in munition plants or in some other form of war work in the firm faith that they were doing their bit. Parents have frequently spoken to me of the unsettling effect this has had on the boys and of the difficulty of inducing them to return to school.

I am not at all sure that a grave injustice has not been done to many of our school boys. No effort was spared to induce them to offer their services to the state, and they responded nobly, if in many cases inadvisedly, but no effort has been made to show such boys how they can serve their country and themselves best now that the war is over. Can not the spell of patriotism in time of war be replaced by the idea of service in time of peace? Many parents would be grateful for the assistance that such a campaign would give them in inducing their boys to seek a better education as a preparation for their life's work.

Means of Improving the Janitor Service

Continuation Schools in most places are carried on in the same building as the Public Schools, and too frequently the work of the janitor is unsatisfactory. As a means of securing more serious attention to this important matter by School Boards I would recommend a change in the method of apportioning the grant. It has been the custom to give an annual Legislative grant of 8 per cent., and as the county must pay the same, the School Board receives 16 per cent. of the value of the equipment annually. As this continues year after year the equipment is paid for over and over again by grants. Much of it needs repair or has been discarded because the courses in science have been altered and about the only value it has is to draw its annual apportionment of grant.

I would recommend that the Legislative grant on equipment be increased to 10 per cent. and that it be continued only for a limited period. As the county must pay the same as the Legislature, School Boards will receive an annual grant of 20 per cent. of the value of the equipment. This grant should be continued for six years only, as by that time the total value of the equipment will have been returned to the Boards, leaving a liberal margin for breakages and other loss.

To maintain the present amount of the Legislative and County grants the duties of the janitor should be defined in the regulations and his work be graded I-IV by the Inspector. If for Grade I a grant of about $40 were given and the amount decreased rapidly with the grading, the School Board would be aroused to take an active interest in the work of the caretaker, as it would mean a serious falling off in grants if the grading were low. It might also lead to more adequate pay for the work of the janitor.

Causes Operating Against Extension of the Work of Continuation Schools

All efforts to extend the work of these Continuation Schools so that they may better serve the needs of the communities in which they are located are rendered of little avail because of two things:

1. When a building has to be enlarged or a new school erected to provide the room necessary to carry on the work, all the expense must, under the present Schools Act, be borne by the section or small urban centre in which the school is located.

2. When a third teacher becomes necessary from any cause the Principal must hold the qualifications of a High School Principal and the grants to the school are the same as those given to a two-teacher Continuation School.

(1) *The Cost of Building.*

In most cases the Continuation School is carried on in the same building as the Public School. There is no room in the building for any extension of the work and in many cases the rooms occupied by the Continuation School are needed for Public School purposes. As a result any proposal to extend the work of the Continuation School must take into account the extension of the present school building or the erection of a separate building for Secondary School purposes. Rural sections or small urban centres do not feel that they can bear, or that they should be expected to bear, the whole cost of the building required for such extension of the work.

To distribute the load more fairly and to encourage the extension of the work of the Continuation Schools so as to include a department of agriculture and later, of household science, I would make the following recommendations in regard to the cost of the building:

(*a*) Where, in order to provide room to carry on the work of a department of agriculture or household science, it becomes necessary to erect a new building or enlarge the present building, similar assistance shall be given by the Legislature to such sections or small urban centres as may be given toward the erection of Technical Schools in the large urban centres.

(*b*) Since a department of agriculture or of household science established in a Continuation School would be of particular benefit to the youth of the surrounding rural municipality, this municipality, or the county, shall contribute annually a proportion of the cost based on the relative number of children in attendance from the municipality.

(2) *Qualifications of Staff.*

To carry on the work of an agricultural department requires at least half the time of a teacher. To do this work satisfactorily, in addition to the usual work of the school, will necessitate a third teacher on the staff. Under present regulations this means, in the great majority of schools, the dismissal of the present principal, who holds only a First Class certificate, and the engagement of a teacher who holds the qualifications of a High School Principal. In many cases it means the dismissal of a teacher whose efficient work for some years has built up the attendance and has given the ratepayers the confidence that is necessary to induce them to consider a further extension of the work of the school. It further means the engagement of a stranger, who is not likely to be among the best of his class or he would not be seeking the principalship of such a small school, and the payment of a salary of from three to five hundred dollars per year more than is paid to the teacher with whose work everyone is entirely satisfied. As this increase of from three to five hundred dollars must be borne entirely by the section or small urban centre, it means that the tax rate will be increased about two mills. School Boards will not consider such a proposition, particularly when it also means an additional cost for the necessary class room accommodation.

I would offer the following recommendation:

Where a third teacher becomes necessary because of the establishment of any course in agriculture or household science as part of the work of a Continuation School, the school shall still be regarded as a Grade B School and the courses of

study, the qualification of the staff, and the grants shall be those prescribed for Grade B Schools, with the addition of such subjects of study, qualifications of teachers and grants, as may be prescribed for the work and maintenance of the particular departments that are carried on in the school.

I have the honour to be,

Sir,

Your obedient servant,

G. K. Mills.

Toronto, January 8th, 1919.

II. REPORT OF INSPECTOR HOAG

To the Honourable H. J. Cody, M.A., D.D., LL.D.,

Minister of Education for Ontario.

Sir,—I beg to submit for your consideration the following report on the Continuation Schools under my supervision for the year 1917-1918.

I have the honour to be, Sir,

Your obedient servant,

J. P. Hoag.

Toronto, December 31st, 1918.

Extent of the District

The district within which are situated the Continuation Schools over which I have inspectoral charge, is of vast extent. It stretches from the Quebec boundary on the east to the Manitoba boundary on the west, a distance of nearly 1,200 miles. It extends from Lake Ontario on the south to the line of the National Transcontinental Railway on the north, a distance of about 500 miles. Within this territory there are but 73 Continuation Schools. To visit these schools requires considerable physical endurance as during 1917-1918 I travelled 19,190 miles in performing the inspectoral work of the school year. I spent 42 nights on sleeping cars and many hours of other nights on day coaches. However, the interest in education shown by trustees and teachers, and the enthusiasm of the pupils themselves more than repay one for any personal sacrifice involved in the work of inspection.

During the school year I visited every school in my district at least once. Several, where the local conditions seemed to make it advisable to do so, I visited more than once. In addition I visited a number of schools not classed as Continuation Schools but doing work of Form V of the Public School Course or higher work. Of the condition of each school inspected, I made due report immediately after the conclusion of the inspection. In the work of inspection itself

I was assisted by many of the Public School Inspectors. As the local Inspector knows the local conditions thoroughly, his presence during the days of inspection is of great assistance. I am greatly indebted to these Inspectors who aided me by their presence and with their advice.

The exceptionally severe weather during the winter of 1918 and the outbreak of Spanish influenza during the autumn of the same year greatly interfered with the routine of inspection. In some cases schools were closed for considerable periods, ranging from one week to three months.

Schools and Accommodations

During the year two Continuation Schools, Bracebridge and Fort Frances were raised to the status of High Schools. These schools have done good work in the past and I have no doubt that, with enlarged teaching staffs and improved accommodations, they will do even better work in the future.

Three schools, Fitzroy Harbour, Wolfe Island, and Malakoff have been closed for some months through the inability or failure of the Boards concerned to secure qualified teachers. Indeed, it has been very difficult during the past year for Boards to secure teachers.

Two schools, Westboro' and New Toronto, have become two-teacher or Grade B Continuation Schools. As these schools are situated on the outskirts of Ottawa and Toronto, I feel sure that in the near future they will develop into High Schools. Indeed, it would seem to be advisable for New Toronto to unite with Mimico to form a High School District. Early in the year 1918 Burk's Falls Continuation School moved into fine new quarters in the building which had formerly been the District Court House. Unfortunately, in the early summer of the same year, the building was struck by lightning and destroyed. The loss was a staggering one to the community and the Board. But during the summer and fall the work of rebuilding was carried on and on December 30, the school reopened in a new building far superior to the one destroyed.

The school building at Fitzroy Harbour was burned during the winter of 1918. The school work was carried on in a rented hall until June. Since summer, however, this school has not re-opened.

The accommodations in several schools are unsatisfactory but during the progress of the war, on account of the condition of the labour, material, and money markets, I did not press for immediate action. Since the signing of the armistice, however, several School Boards are going carefully into the question of how to provide better accommodation. During the next two years there will, I am sure, be great improvements in the school buildings of the Continuation Schools.

Teachers

In my report for the year 1914 I said:

"If 'it is the man behind the gun that does the work,' it is also the teacher in the school who makes the school a success. In the past it has been found difficult to secure a sufficient number of properly qualified teachers for our Continuation Schools, but at present, I am glad to say, the supply is quite adequate. It is true that in some schools, particularly in the districts, on account of the unwillingness of many teachers to accept situations, it has been necessary to grant temporary certificates of qualification. At present there are, however, only two such certificates in my Inspectorate.

"But as a large proportion of the teachers of the Continuation Schools are women, and as Cupid is no respecter of the needs of School Boards, there are many changes in the personnel of the staffs. These changes are more numerous also because so many teachers change positions in order to secure larger salaries or more congenial places of residence. It is needless to say that changes in teachers very seriously affect the work of the school, and it is greatly to be desired that something be done to prevent changing teachers except at the end of a school term. School Boards themselves could do much to bring about such a desirable condition, if, when engaging a teacher who has a position in another school, the agreement were made for such teacher to begin work at the close of the then current term."

The insistent call of the war depleted our Continuation Schools of most of its young male teachers who were sound in body and in heart. As a result many School Boards found great difficulty in securing teachers. Then the greater financial and other advantages offered by the larger towns and cities attracted many of our best teachers to High Schools and Collegiate Institutes. As a result, it has been necessary to recommend the granting of a considerable number of temporary certificates so that schools should not remain closed. In particular it has been necessary to recommend a considerable number of temporary certificates in Art and Physical Culture.

Now that the war has ended victoriously, no doubt many teachers will return to the schools. We will welcome them heartily. But I wish to point out to the Boards of Trustees of our Continuation Schools that the only way to secure and retain thoroughly qualified teachers is by making salaries as attractive as are those offered in larger centres.

There is one factor, however, which makes it very difficult for Continuation School Boards to secure or retain teachers. As this factor is one which will continue to operate adversely toward the Continuation Schools, I venture to call attention to it. The factor is the Amended Regulations of 1917 so far as they relate to qualifying certificates for teachers of High and Continuation Schools. Under these amended regulations, it is uncertain whether experience gained in Continuation Schools will count toward securing a permanent certificate valid after 1920 for both High and Continuation Schools, as was formerly the case. The result is that young teachers graduating from the Faculties of Education avoid, as far as possible, Continuation Schools. Then again the regulations referred to, are retroactive in character, and as a result a number of experienced teachers have accepted positions in High Schools rather than remain in the Continuation Schools.

I feel it my duty to call attention to the effect of the amended regulations of 1917, in the hope that before they go into operation in 1920, they may be re-considered and revised. I feel confident that the matter need be but brought to your attention to secure a remedy.

Ordinary School Subjects

The Continuation Schools are doing very efficient work in providing sound secondary training for the youth of many rural and village communities. The skill and energy of the teachers are all that can be expected; the earnestness and enthusiasm of pupils are most encouraging. As a result the general work of the schools is good.

But while this is the case I wish to point out two places where great improvement is possible and desirable. In the first place, writing is not good. No doubt many pupils are poor writers when they enter High and Continuation Schools, but unfortunately very many pupils are worse writers after a year or two spent in these schools. Far too many note-books are kept and far too much hurried writing required of the pupils. Then though the teacher of writing is earnest and painstaking during the formal writing lesson, little or no attention is paid to the writing or neatness of the pupils in their other lessons. Constant attention to writing by all teachers in all school subjects will lead to great improvement.

In the second place, history is not well taught. Too many of our teachers either give notes for pupils to learn or require pupils to underline passages in the text-books for memorization. As a result history teaching is too often a dead thing and many (I fear most) pupils leave school with a positive dislike for the subject of history. Perhaps our examination system is to blame for much of the difficulty in interesting pupils in history. But the chief aim of the teacher should be to create an interest in history and a desire on the part of the pupils to read for themselves. That this is possible is shown by the fact that a few of our teachers are succeeding along these lines without failing to prepare their pupils for examinations.

Art

In many schools I find that the work in Art is not satisfactory. This is due in some degree to the fact that many teachers are not well qualified to teach Art. It is, however, due also to some extent to the fact that many parents and trustees and most of the boys look upon the Art work as of little use. Indeed, some Boards have asked if they might not substitute simple commercial work and drawing for the colour work in Art. In the large High Schools and Collegiate Institutes it is possible to teach both Art and Commercial Work but in a two-teacher Continuation School this is impossible as the time of the teachers is fully taken up with compulsory subjects of which Art is one.

It would appear that a certain amount of elasticity in the choice of such subjects as Art, Agriculture and Horticulture, and Commercial Work might be permitted so that School Boards having control of two and three-teacher schools might, with the approval of the Inspector, select the subject most suited to the youth of the community. Thus one school might teach Art; another, Agriculture and Horticulture; and another Commercial work. I feel assured that as much use and cultural value may be found in any one of these subjects as in any other but it is clearly impossible for a small school to provide for all of them. Too much attention has, I feel, been given to Art in the past.

Continuation Schools in Rural Districts

When Continuation Schools were first formed, it was expected that they would provide secondary education for country districts, that they would be Rural High Schools. However, nearly all our Continuation Schools are situated in small town or village communities. Very few of our Continuation Schools are in the country proper.

Rural children surely require and deserve as great opportunities for education as the children of towns and villages. The willingness of rural communities to provide good educational advantages for the youth is a test of the right to

retain young people in the community. We need secondary schools in rural districts. But these schools must be of a type adapted to the needs of these districts. I can, however, see no prospect of securing the establishment of such schools until we have made progress in the consolidation of school sections. With consolidation will come good secondary schools in the country and a great increase in the number of schools and of pupils in attendance.

The Obstacles to Consolidation

Wherever consolidation of schools has been effected in the United States, there has followed a demand for secondary school advantages. Rural Continuation Schools will surely follow consolidation in Ontario. Whatever then prevents consolidation tends to hinder the development of Continuation Schools. The history of the movement toward consolidation in the United States shows that, wherever the small district system has prevailed in school administration, consolidation has made little or no progress; but wherever there are township or larger school units in school administration, consolidation has made remarkable progress. In no State of the American Republic has there been greater advancement in the consolidation of schools, than in Indiana. But in that State the township unit prevails. It would appear, therefore, that in Ontario we must strive to replace the school section unit in school affairs with the township or county unit. If this can be done, I look forward to great advances not only in the ordinary public school work of our schools, but also in the work of the Continuation Schools.

APPENDIX D

REPORTS OF THE INSPECTORS OF HIGH SCHOOLS

1. REPORT OF INSPECTOR HOUSTON

To the Honourable H. J. Cody, M.A., D.D., LL.D.,
Minister of Education for Ontario.

Sir,—I beg to submit for your consideration a brief report on the general condition of the Collegiate Institutes, High Schools and private institutions which were under my supervision during the academic year 1917-1918.

I have the honour to be, Sir,

Your obedient servant,

J. A. Houston.

December, 1918.

Schools visited

During the year I visited the Collegiate Institutes at Brockville, Cobourg, Kingston, Lindsay, Morrisburg, Napanee, Ottawa, Perth, Peterborough, Picton, Renfrew, Smith's Falls and Vankleek Hill, thirteen in all, and the High Schools at Alexandria, Alliston, Almonte, Arnprior, Athens, Avonmore, Aylmer, Belleville, Brighton, Bowmanville, Campbellford, Carleton Place, Chesterville, Colborne, Cornwall, Deseronto, Dutton, Gananoque, Hawkesbury, Iroquois, Kemptville, Madoc, Markham, Morewood, Newburgh, Newcastle, Norwood, Omemee, Pembroke, Plantagenet, Port Hope, Port Perry, Prescott, Richmond Hill, Rockland, Stirling, Sydenham, Tweed, Trenton, Uxbridge, Williamstown, Whitby, and Winchester, forty-three in all.

I also visited the following private schools: The Academy of St. Mary Immaculate, Pembroke; St. Joseph's Academy, Lindsay; Albert College, Belleville; The Convent of Notre Dame, Kingston; The Ladies' College, Whitby; Loretto Abbey, 403 Wellington Street, Toronto; and the Loretto Day School, 385 Brunswick Ave., Toronto. My list thus comprises 13 Collegiate Institutes, 43 High Schools, and 7 private schools, all of which are preparing candidates for one or more of the examinations for admission to the professional training schools for teachers.

Accommodations

Only in two towns in my district has there been a new building completed and occupied during the school year. In April, 1918, the classes of the Trenton High School took possession of a new, commodious, up-to-date Collegiate building which is a credit to the town and to the enterprise and perseverance of the Board, which is to be congratulated upon the successful completion of an undertaking begun some years ago under rather adverse conditions. The formal opening was attended by a large number of representative citizens as well as by representatives from the Boards and staffs of neighbouring towns and cities. I hope in the near future to see the Board make still further advance by the establishment of technical and vocational classes in this most promising centre for such work.

A new building was opened in Tweed also, when the former continuation school became a High School under most favourable conditions and with a very promising future. This building is modern in every particular and its opening marks a new era in the advancement of secondary education in this particular centre. The Chemical Company of Sulphide, whose manager is chairman of the High School Board in Tweed, made a generous grant of $500 towards supplying science equipment for the new school, and this same company furnishes a large motor bus for the free conveyance of pupils from Sulphide to Tweed.

In Renfrew the Board have again taken up the question of new accommodation and are making a determined effort to provide a building which will be in keeping with the high reputation of their school and with the general standing of the town.

The changes made during the year in the detailed items of accommodation in the different schools have been so few that there is no need of a tabulated summary such as was given in my last report. Financial conditions have discouraged the incurring of large expenditures; Boards of Education have been marking time, and have contented themselves with making only such changes and additions as were absolutely necessary for the proper carrying on of the work of the schools. What the future has in store it would be difficult to prophesy, but the period of reconstruction upon which the country is now entering will no doubt see carried to completion many of the plans which had been formulated before the war began. It will be expected that towns, in which the accommodations had been reported as defective or insufficient, will at once make provision for the changes which, with the consent of the Department, had been held in abeyance until world conditions should become normal.

Teachers' Work

The general work of the teachers continues to be eminently satisfactory. In season and out of season their one aim seems to be the intellectual and moral advancement of those under their care: they spare neither time nor strength to accomplish their object; only those who come into intimate association with them can fully appreciate their self-denying efforts and whole-souled devotion to duty. I regret to say they do not always receive the support and encouragement they have a right to expect, and they often have to carry on their work under most adverse and discouraging conditions. One of the most serious handicaps in the way of satisfactory results is congestion in classes. Neither trustees nor parents yet realize the futility of attempting to teach classes numbering forty-five, fifty or fifty-five pupils. The average layman thinks fifty can be as easily taught as twenty, provided seats can be found for them. The usual excuse for congestion is lack of funds, but there is a saving in expense which is poor economy. Solomon might well have been referring to certain present-day educational conditions when he declared, "there is that withholdeth more than is meet, but it tendeth to poverty."

The question of providing class-rooms, equipment and teaching power is largely a financial one. For good work classes should not exceed thirty pupils in the majority of subjects; many experts would place the number as low as twenty. To secure such a condition, especially in the larger towns and cities, means a much greater outlay than is made at present, but surely the country that has spent millions upon millions freely and willingly, for the defence of the highest ideals of human liberty and progress will not fail to provide funds for the education of those who are to uphold those ideals in the future. I have referred specially to the question of congestion, because to it may be attributed most of the failures found in the schools.

The powers of even the best teachers are limited; they cannot accomplish impossibilities.

Various Subjects

In past years I have reported at length on the character of the work done in the various subjects placed on the programme of studies, and have indicated from time to time where improvement might be made. Defects still exist which might easily be remedied; in Elementary Science instruction still takes the place of experiment and observation; in History the pupil still writes and memorizes what are really dictated notes, instead of being trained to read and summarize for himself; in Mathematics and Science problems still take up hours of precious time at home which could be more profitably spent on the memory work necessary in language study; attempts are still made to carry on too many subjects at one time, with the inevitable result that few of them are well mastered. However, I have reason to hope that defects such as these are becoming the exception rather than the rule, and looking back over the past ten years one can see most marked evidence of progress, particularly in such subjects as Elementary Science, Art, Physical Culture and even in Mathematics and Languages. Teachers are learning that proper methods will secure as good examination results as the "stuffing" process, and will turn out a much superior finished product so far as ability to face the problems of life is concerned.

Farm Labour

The regulation which provided that pupils attending Public or High Schools in preparation for departmental or matriculation certificates might under certain conditions be granted their standing through employment on the farms of Ontario has had a very far-reaching effect upon the schools. The school year has been practically cut down to eight months in the case of all those who took advantage of the Regulation. This means either that they did not complete their regular year's course, or that the review of work which is so necessary to round out the course was omitted. As a consequence we have at present in the schools very many pupils who are working at a decided disadvantage, and are going to require one or two years longer to complete their course than if there had been no interference with their regular work. The standing obtained by "farm labour" is in many cases proving a sacrifice, and not the gain which the pupil had anticipated. Even in the first forms there are many pupils who are not prepared to take full advantage of the High School course, and whose educational progress would be much more rapid had they come into the schools in the ordinary way. I have no doubt that in the Universities and the professional training schools similar conditions exist, and we may expect to find a good many "starred" candidates during the next few years. Provision is made for the operation of similar regulations next spring, but for the sake of the schools it is to be hoped that there will be no necessity for continuing the present arrangement beyond the current year.

Courses and Examinations

There are three stock criticisms directed against secondary schools to which I would like to make brief reference, as it does not appear to me that any one of the three is justified. The first is that the course is overcrowded and the pupils overburdened with the amount of work demanded; the second, that the schools are "examination ridden," as a prominent educationist recently expressed it, and the third, that the work is not sufficiently practical and leads in the wrong direction

for the majority of the pupils. I hope to shew that, if any one of these criticisms is justified in the case of any particular school, the fault lies in local conditions, not in the regulations which govern the schools.

The High School regulations provide for (i) a general course for pupils who desire merely a general education, (ii) a course for those who desire to qualify as public school teachers, and (iii) a course for matriculation into the Universities, or into what are called the learned professions. The first two of these are controlled by the Department of Education, the third by the governing bodies of the various universities and colleges. The full High School course is planned to cover a period of six years, and is divided into three parts, Lower School, Middle School, and Upper School, each a two-year course. The complaint about overcrowding of subjects is practically confined to the first two years; I have yet to find any serious objection to the Middle or Upper School work from those who are willing to take the required time, and are not endeavouring to crowd two years' work into one, or adding to the obligatory subjects certain optional subjects which they hope may help them.

The pupil who selects either the general course, or the course leading to the Normal Entrance, must take the following subjects in his first year: English Grammar, Composition and Literature, Arithmetic, Algebra, History and Geography, and what may be called the practical subjects, Art, Elementary Science, and Reading. It will be noticed that most of these are subjects he has already been taking in the Public School, and it is not necessary that all should be taken at the same time. In the second year the Reading, Grammar and Arithmetic may be dropped by the general course pupil, while Geometry is begun as a practical subject. During both these years there will be ample time for school study periods, and the amount of home-work will be very small, provided the five or five and a half hours in school are well employed. During his third and fourth years the general course pupil must take Composition, Literature, History, Algebra and Geometry, while to these the candidate for Normal Entrance must add Physics and Chemistry, practical subjects obligatory for teachers only. This cannot be called an overloaded curriculum even if the course in each subject is somewhat extensive.

Candidates for matriculation into the Universities require Latin and French, possibly Greek or German, in addition to certain general course subjects. Certain optional subjects such as Book-keeping, Household Science, Manual Training, Agriculture, Latin and Art are allowed as Bonus subjects in the Lower or Middle School examinations for entrance to the Normal. Now comes the explanation of the overcrowding which I must confess exists in many places. Hundreds of pupils are taking double work, that is, are taking both the teacher's course and the matriculation course, are then adding to this one or more of the extra optional subjects referred to above, and, as if this were not enough, are endeavouring to cover the work of two years in a single year in order to save time. The bright, clever, physically strong pupil may carry the work through successfully without injury to himself; others struggle under the load, fail in the attempt, and then blame anything and anybody but themselves for the failure. Of course the burden was too great and they were ill-advised to attempt it. I have seen classes in their first two years taking all the compulsory subjects of the teacher's course, the Latin and French of the matriculation course, adding one or more of the Bonus subjects, and planning to cover the four years' work in three years. No wonder parents and pupils, in such case, declare the work too heavy, but why not place the responsibility where it belongs?

The question of the number of examinations is very simply disposed of. The general course pupil is not required to take a single examination in his whole school course except such as his teachers may give in the regular work to test his fitness for promotion, and the candidate for entrance to Normal has only two Departmental examinations, one at the end of his Lower School work, and another at the close of the Middle School course, which does not appear to be an over-testing of academic fitness to teach public school. The candidate for Junior Matriculation has one examination to pass at the end of his four-year course.

The assertion that High School courses are not sufficiently practical raises at once the question of the function of the secondary schools, and on this point there is diversity of opinion. They must make provision for the academic training of those who are to become public school teachers, and they must prepare candidates for entrance into the learned professions, but they should justify their existence by appealing to a much wider constituency, and offering courses suitable for those going into business, agriculture, or the arts and crafts. That this is a part of High School work is now recognized and acknowledged, and accounts for the encouragement and support given to the establishment of classes in such practical subjects as Manual Training, Art, Agriculture, Book-keeping, Elementary Science, Stenography, Household Science, Physics and Chemistry. Further extension of High School endeavour along these lines is largely a question of finance, and as soon as necessary funds are provided the work will expand.

But in the final analysis a boy's education does not depend so much upon the subjects studied as upon the character of the training received. Almost any course, even the work in the gymnasium, may be made instrumental in developing leadership, power of organization, and initiative, and these are the qualities which spell success in either business or professional life. The business house of to-day is more concerned with the general knowledge, character and training of its prospective employees, than with the subjects they have studied. In illustration of this I take the liberty of quoting a few sentences from a recent magazine article contributed by one of Toronto's leading business firms:

"Not so long ago it was considered that if a lad were studious at school he should finish the school course in order to enter college to study for a profession. Perhaps it was thought that education was of no great advantage in business, especially as employers rarely insisted on any educational standard. This idea is rapidly changing. It is now realized that, whether in the business of production, or distribution, or finance, a liberal education is as necessary for the best success as it is in the professions. In the world of business, modern competition necessitates a study of organization, standardization, and the minimizing of waste. The problems arising in these call for highly trained minds, and for clear thinking. Therefore in choosing the staff that is intended one day to fill important positions, progressive business men prefer the youths most likely to have the capacity for developing trained minds, in other words, the youths with good school records."

II. REPORT OF INSPECTOR LEVAN

To the Honourable H. J. Cody, M.A., D.D., LL.D.,
Minister of Education for Ontario.

Sir,—I have the honour to submit herewith a report of my inspection of High Schools and Collegiate Institutes for the year 1917-18.

During the year I visited the Collegiate Institutes of Brantford, Chatham, Fort William, Galt, Hamilton, Ingersoll, Kitchener, London, Port Arthur, St.

Mary's, St. Thomas, Sarnia, Stratford, Strathroy, Toronto (Harbord), Toronto (Humberside), Toronto (Jarvis), Toronto (Malvern), Toronto (Oakwood), Toronto (Parkdale), Toronto (Riverdale), and Windsor, and the High Schools at Amherstburg, Aurora, Aylmer, Dutton, Essex, Forest, Georgetown, Glencoe, Hagersville, Kenora, Leamington, Lucan, Oakville, Paris, Parkhill, Petrolia, Port Dover, Port Rowan, Ridgetown, Sault Ste. Marie, Simcoe, Streetsville, Tillsonburg, Toronto (North), Vienna, Wallaceburg, Wardsville, Waterford, and Watford. I also visited the night schools conducted in connection with the Collegiate Institutes at Hamilton, London, Toronto (Harbord), and Toronto (Jarvis).

Acting under instructions, I also visited the following private schools to examine and report on their work in Art, Science, and Bookkeeping and Writing:—De La Salle College, Aurora; Ursuline College, Chatham; Loretto Academy, Hamilton; St. Anne's Convent School, Kitchener; St. Angela's College, London; Alma Ladies' College, St. Thomas; Loretto Convent, Stratford; Moulton College, Toronto; Havergal College, Toronto; St. Joseph's College Academy, Toronto; and St. Mary's Academy, Windsor.

School Buildings

I doubt if there are in any other part of the Province buildings better suited for their purpose than some of those in the district of which I have had charge this year. Those recently erected have been planned with a regard for architectural appearance as well as for the comfort, convenience, and health of those who are to use them. Modern High School buildings require many accommodations that were not considered necessary in buildings of an older type: assembly halls, art rooms, gymnasiums, etc. In most of the newer buildings provision is made for all these requirements, and special care is shown in the provision for lighting, heating, and ventilation.

But there still remain many schools of the older type, in which little care has been given to those matters, and where pupils are crowded together in poorly lighted and ill-ventilated class-rooms. Other schools have suffered from their prosperity, their buildings, which were once suitable for smaller numbers, being now wholly inadequate for the increased attendance. During the war building operations have, as a rule, been suspended. The abnormal conditions prevailing in the financial and labour markets have deterred boards from undertaking improvements which they concede to be necessary, and which will have to be undertaken as soon as conditions improve.

A notable exception, however, is to be found in Windsor, where a large addition to the Collegiate Institute, which has been under construction for some time, was completed and occupied at the beginning of the new year. To make the older part conform with the new, extensive alterations were made in the interior arrangement, and the school is now housed in a building which, in the completeness and excellence of its accommodations, is the equal, if not the superior, of any I have yet visited. The assembly hall is the finest I have yet seen. The labora[illegible] are furnished with the latest and best equipment for the teaching of science. Provision has been made for physical culture in two gymnasiums, with showers and swimming pool. Individual lockers provide storage room for clothing and books. An excellent system of heating and ventilation has been installed. And, in fact, no expense has been spared in providing for the comfort and health of pupils and teachers, and for facilities in carrying on the work of the school. The Board deserve the highest commendation for their liberality and enterprise in carrying out these improvements.

Reading, Writing and Spelling

Following the usual custom, I have given practical tests in Reading, Writing, and Spelling in each school I have visited. The results of the tests, I regret to say, are not always encouraging. It would seem that, amid the pressure of all the subjects to be provided for, the importance of these is imperfectly realized, or difficulty is experienced in finding room for them on the time-table. The latter fact probably explains why the results in Spelling are usually less satisfactory in the Second Form than in the First. Where pupils have come into the High School with a poor grounding in Spelling, it is hard to give sufficient attention to the subject to remedy their defects; but it should not be impossible to provide for those who have no natural deficiency. The criticism frequently directed by business men against the High Schools, that their graduates are unable to spell, should stimulate the teachers to remedy the fault.

The same is true of Writing. Many pupils enter the High Schools without having acquired a knowledge of so elementary a matter as the proper method of holding the pen, not to speak of the greater difficulty of mastering the knowledge of movement and form necessary to good penmanship. The correction of these defects demands infinite patience, so much patience, in fact, that the teacher frequently gives up in despair and allows the pupil to fall back into the old habits, where improvement becomes impossible. But where the pupil's interest is aroused, excellent results are easily secured. I recall a school in which the penmanship was so good that I sought an explanation of this unusual state of affairs of the teacher. I learned that no more than two periods a week were apportioned to writing, but that the offer of two annual prizes by a resident of the town, of ten dollars and five dollars each, had aroused interest, and transformed the character of the writing throughout the school.

Patience is no less necessary in the teaching of Reading, but enthusiasm also is necessary, together with a knowledge of what constitutes good reading, and a constant alertness to detect and correct mistakes. It is unfortunate that this subject is not always assigned to the member of the staff who is best qualified to teach it, but, owing to the exigencies of the time-table, is often thrust on a teacher who has no special aptitude for it, and has enjoyed no special preparation for teaching it. I have, indeed, heard excellent lessons in reading; but far more frequently I listen to barren lessons, in which little interest is aroused, and no enthusiasm shown, either by teacher or by pupil. Mistakes in pronunciation of words in common use, indistinct utterance, slurring, errors in grouping or in emphasis, sing-song, and all other possible and impossible mistakes follow one another in rapid succession. Where such faults receive correction, progress is being made, but they are not always corrected. I have listened to a lesson in which the most glaring errors were passed over without a word of help or criticism; when one pupil finished, the teacher simply called on the next. One almost wishes for a Summer Course to help those teachers who would welcome help if they knew where to get it.

English Literature

The method of teaching English Literature in the Middle and Upper School classes is largely determined by the character of the papers set at the Departmental and University examinations; and as these examinations require intensive study of the substance of the poems prescribed, the teaching, so far as it can be tested by written examinations, is in most respects satisfactory. But written ex-

amination cannot test all the elements that enter into the profitable study of poetry. They cannot test the response that the pupil has given to the emotional appeal of the poem; nor the depth of his appreciation of the great truths that the poet enunciates. Nor can they test his power to give a sympathetic oral rendering of the poem that his hearers may feel its beauties. In respect to matters of this kind, the teaching is, in many cases, not so good. There is doubtless great value in dissecting the plot and analysing the structure of a play; but there is surely greater value in getting an appreciation of the finer values I have referred to above. When studying a poem it is worth while to pause occasionally in the presence of a great thought and give time for its importance to sink into the mind; worth while occasionally to let the poet's music ring in the ears and get the pupils to enjoy the melody of his language. It is worth while, too, to let the pupils do most of the oral reading, even though their efforts are halting and imperfect. I have sometimes asked teachers why they do not let the pupils do more of the oral reading, and have been answered that the pupils are unable to do it properly. As well might a teacher of Arithmetic do all the problems for his class, on the plea that he can do it better than they and can thus save valuable time. If pupils have no practice in reading poetry they will never learn to read it well, and will lose one of its main enjoyments.

In the Lower School the selection of the Literature to be read is left to the discretion of the teacher, and the choice is usually very satisfactory. The general practice is to make a selection of three books, a prose work, a drama, and a book of poems. Here the reading is less intensive than in the Middle and Upper School classes, and the lessons generally yield a great deal of enjoyment. But too little attention is given to the memorization of choice passages. For the young the memorization of poetry is seldom a burden, and it always carries its own reward.

Lower School History

There is no work in the whole curriculum so burdensome as the Lower School Course in History, and none that yields so poor a return for the time devoted to it. Up to 1914 the prescribed work included all Canadian and all British History. Now the history of the Great War has been added, increasing the burden by one-half or at least one-third. What makes the situation harder to deal with is that History, not being a subject of the High School Entrance examination, is neglected in many of the Public Schools, and pupils enter the High School with little or no knowledge of it. This difficulty will probably be removed by the new regulation which makes History an examination subject of the Entrance examination. But even so, the amount to be covered is far too great. The consequences are not hard to see. History, which should be one of the most interesting and useful of the subjects taught in the schools, is seldom liked, and pupils rarely carry away a desire for further reading on the subject. A reduction of the amount to be covered would afford time for better teaching, and would produce infinitely better results.

The Cost of Text-books

In my visit to the schools situated in the remote northern part of the Province, Port Arthur and Fort William, I found that the cost of text-books is made an unduly heavy burden on parents. From five to ten cents more than the authorized price is charged for each text-book, the dealers claiming that the cost of carriage is so great that they are unable to sell the books at the price set by the Department. Even in more favoured localities the cost of

text-books is often a determining factor in deciding whether boys and girls are to have a High School education. Where the cost is thus increased it is not hard to see that many who would otherwise enjoy a High School education must be forever deprived of this benefit. Nothing could be more unjust than that a child, through the accident of being born in this remote district, should have such an obstacle thrown in the way of his education. It is hard to suggest a remedy. Boards may now, it is true, purchase text-books at wholesale prices and supply them to pupils at cost price or free of charge; but they are reluctant to take this step as it would interfere with local trade. A better plan would be for the Department to establish local depots at these places and supply the books at the regular price. I believe that this plan could be easily worked out, and I would urge that in the interest of secondary education in these localities some such plan should be adopted.

Teachers

In my report of last year I gave the impression I formed of the High School teachers after working among them for six months. My association with them for another year has greatly strengthened that favourable impression. It is my confirmed opinion that no other servants of the public are more conscientious in the discharge of duty, none more hard-working, more faithful to high ideals and more self-sacrificing in the effort to attain them than the teachers in the High Schools. With natural and acquired abilities that would well fit them for success in walks of life that yield substantial financial rewards, they are content to work on, underpaid, often misunderstood, sometimes misrepresented, but cheerfully spending their strength in a noble effort to inspire the boys and girls who come under their influence with high ideals of citizenship and life. And the character of the ideals they have inspired is written in letters of gold in the records of Flanders' fields and beside beds of pain and suffering in the hospitals of Europe and Canada.

I have the honour to be, Sir,

Your obedient servant,

I. M. LEVAN.

December, 1918.

APPENDIX E

REPORT OF THE INSPECTOR OF MANUAL TRAINING AND HOUSEHOLD SCIENCE

The Honourable H. J. Cody, M.A., D.D., LL.D.,

Minister of Education for Ontario.

Sir,—I have the honour to submit herewith my eighteenth annual report on Manual Training and Household Science as carried on in the schools of the Province.

Previous Reports

The reports for 1906-7-8-9, in addition to being printed in the report of the Minister, were published as separate pamphlets, were well illustrated with photographs of the work of the schools and received a wide circulation. These pamphlets are now out of print, but can still be seen in the Minister's Reports for those years. From 1910, the reports consisted of a tabulated list of schools in which manual training and household science are taught. These tables contained information on the teachers, salaries, number of pupils, length of lessons, accommodations and equipment.

Number and Location of Manual Training Centres

There are now ninety-three Manual Training centres in actual operation. These are situated in the following places: Brantford, Brockville, Chatham, Collingwood, Cornwall, Fort William, Galt, Guelph, Hamilton, Ingersoll, Kingston, Kitchener, London, Ottawa, Owen Sound, Port Arthur, St. Thomas, Sault Ste. Marie, Smith's Falls, Stratford, Toronto, Walkerville, Windsor, Woodstock, North Bay, Peterborough, Port Perry, Whitby, Oakville, Orangeville, and Listowel.

The larger cities—Toronto, Ottawa, Hamilton, London, Windsor—each have a number of centres, while in the smaller places one or two centres afford sufficient accommodation.

Co-Operative Action of Smaller Towns

There are still ten towns in the Province with a population of more than 5,000 each, that are without facilities for giving instruction in manual training and household science. Owing to the expense, lack of accommodation and properly qualified teachers, it is a difficult matter to introduce these subjects into the smaller urban communities. We have not yet fully learned the lessons of co-operation that we might learn from the older countries of the world, and it is in learning these lessons that the solution of this difficult problem lies. In these small towns there are often not enough pupils to employ the whole time of one manual training or one household science teacher. Why should not such towns combine to employ a teacher? He might spend one or two days in each place according to the size of the school population. The extension of radial railways and other transportation facilities should render this possible. I am looking into this situation with a view of forming several groups consisting of small places within easy reach of each other, that could be reached from a common centre.

Character of the Work

The character of the work being done in the manual training classes has undergone considerable change during recent years. The early arguments urged for the introduction of manual training were deliberately designed to satisfy labour organizations. It was loudly proclaimed that the subject had nothing to do with teaching a trade, that it had no connection with industry, and that it would not predispose boys to enter mechanical pursuits. The educational and "cultural" value of manual training has been stressed and the industrial value has been denied and ignored. Our industrial training should begin in the public schools. It is there and there only that the pupils can have given to them an industrial bias and bent which will lead them to consider productive industry as a profitable career and to investigate the prospects that it has to offer them. It is there that the erroneous ideas they have regarding industry in general can be corrected, and if our industrial education is to have a solid foundation the effect of a sound scheme of manual training cannot be over-estimated. Properly handled, the subject can be made as educational as the traditional subjects of the curriculum, and at the same time play a decided part in the industrial development of the boy or girl.

Manual Training and Household Science have both had to fight their way in the face of bitter opposition. Educational traditions were outraged, and therefore all those who had been reared on those traditions marshalled their forces, went forth valiantly to do battle, and in a large number of cases won the fight they waged. The idea that education could be given only through the classics long held sway, and it is not even yet dead; even mathematics and science were awarded tardy recognition; and it was really too much to expect that another subject could be allowed equal place with either classics or science.

Now, however, the subject is being increasingly recognized as both educational and industrial. Modified shop methods are being introduced into the schools. Visits to factories and various industries might be made. As far as possible the industries should be reproduced in the class-room, and every opportunity taken advantage of to relate the work closely to the industries of the locality. There should be given a proper appreciation of the value of time and the cost of material. To a large extent this is now being done, and the character of the projects constructed, all involving mechanical drawing, principles of mechanics and sound construction, suitability of materials, and proper finish, is gradually increasing in difficulty, beauty, and usefulness.

Exhibitions

Much good has been done by school fairs and exhibitions in various parts of the Province. Prizes are offered for work in manual training and household science. The work of the classes is often exhibited in a prominent store window and invariably arouses much interest. At the annual exhibition in Toronto, Ottawa, and London, space is allotted for an exhibition of work; a corner is fitted up as a class-room and demonstrations are given daily of the procedure of the ordinary manual training room. These exhibitions and demonstrations invariably draw large and interested crowds, and in this connection I should like to see established a permanent educational building in connection with the Toronto Exhibition. Such a building should show typical work of the grades throughout the Province, while classes in various subjects could be seen actually at work. It is certain that such a building would do much to stimulate interest in what is after all the chief business of the state—education.

Hindrances to Manual Training

While manual training in our schools is accomplishing much, the results are not what they ought to be owing to three handicaps under which it is working. These are: (1) The limited time allotted to the subject in the school curriculum, (2) the lack of elementary instruction, and (3) the scarcity of qualified teachers.

The time devoted to manual training is usually one and a half hours per week. In one or two very exceptional cases the lessons are two hours in length. It will be seen that in this limited time much cannot be done. A lesson of ninety minutes has to include mechanical drawing, bench work, talks on timber and tools, and a number of other things. In a school year of forty weeks this will amount to only twelve days of five hours each. If this work is to accomplish the purpose for which it was introduced and benefit the pupil as it is capable of doing, this period of one and a half hours should be at least doubled. Teachers, however, complain of an over-crowded curriculum, and claim that the necessity of preparing for examinations makes it impossible for them to devote more of the school time to the work. Generally speaking the pupils are anxious to spend as much time as possible at the work, and in some schools are allowed to spend all their spare periods in the manual training room. In some schools largely attended, voluntary classes are held on Saturday morning and from four to six o'clock in the evenings. In one case a very well attended summer school lasting for five weeks was held, and this is a practice to be commended and should be followed in many localities. Notwithstanding all these out-of-school activities the fact remains that much more time should be devoted to this subject on the ordinary time-table of the school.

Pupils unfortunately enter the manual training classes with very little knowledge of measurement, simple geometrical problems, mechanical drawing, tools and materials, and the result is that the first year in the manual training workshop has to be spent very largely in elementary work that should have been done at an earlier period in the education of the child. The curriculum provides for constructive work in clay, paper, cardboard and other materials, and though this is carried on in a large number of schools in the Province there are many in which nothing of the kind is attempted, particularly in the rural schools, where it could be made most valuable as busy work for those periods when the pupils of the ungraded schools are waiting for the teacher. This work is, however, growing in usefulness and popularity. Its aims and objects are being understood by the parents, and its scope and function are being appreciated by the teachers. Trustees are becoming more willing to vote the small sums necessary to carry it on, and where introduced with moderation and tact much good is accomplished. The help that elementary manual training can give to the other subjects in the curriculum is, however, not yet fully understood. It is too often looked upon as an entirely new subject having no relation to others, and when introduced in this spirit, though perhaps some good is accomplished, probably the time could be better spent. The work may be closely related to almost every other subject in the curriculum, and the closer this relationship is made the better will be the results in all subjects.

Every student now leaving the Normal Schools is well prepared to carry on this elementary manual training, having had a brief but thorough training in the use of simple tools and materials. These schools are well equipped for carrying on work of this kind, but I sometimes fear that the excellence of the equipment provided acts, in some cases, as a deterrent rather than as a stimulus. I am continually meeting teachers who hesitate to introduce this work, on the grounds that the material required is not easily obtained, or that the equipment is too expensive for the ordinary school.

It is not always the teacher with the most elaborate equipment and the most generous supply of material that accomplishes the best work. The art of makeshift is a useful study, and the resourceful teacher who is constantly on the lookout for ways and means is rarely at a loss.

One teacher, who found it difficult to obtain just what she required, begged a number of wall paper sample books, and from these her pupils constructed a number of useful articles.

Another teacher did the same from the covers of old copy and exercise books. These instances which could be multiplied are simply mentioned to show that inability to obtain the material usually employed, need be no barrier to the introduction of constructive work. This work is carried on in the ordinary class-room and usually assumes some form of modelling, cutting, and construction in paper and cardboard, sewing and weaving with various materials, and whittling in thin wood. A manual which is now in the process of revision, with special reference to the needs of the rural schools, is issued by the Department, and from this manual the willing teacher may obtain all the help she requires. In view of the importance of the subject and its influence both on general development and industrial education, the hope is expressd that the near future will see the introduction of some form of elementary handwork into every school in the Province.

There is undoubtedly a shortage of manual training teachers and owing to this, temporary certificates have been granted in several cases. A one-year course for training teachers has been held at the Ontario Agricultural College for several years, but the number taking this course is small, and the demand for qualified teachers in our own Province is not being met. Many of our teachers have been battling for freedom and others have gone to the West, thus rendering the shortage still more acute. An Elementary certificate has been granted after attendance at a summer school for two years, and this, though doing something towards relieving the shortage, has not done all that we could desire and has not given us teachers for advanced forms of work. In almost every country in the world it has been the practice to take men with the ordinary teacher's certificate, and in a course of one year or less, to give them the training which would make them efficient in the use of tools and capable of giving instruction in mechanical processes. That is we have been endeavouring to make a skilled artisan out of a teacher. This has been the traditional practice, but I am almost coming to the conclusion that the time has arrived for us to consider which will give us the better results—offering a training in pedagogy to a skilled and educated artisan or giving a training in skill to the professional teacher. Some of the best men in the work to-day came to us straight from the shops. Many of our best teachers recognize the need for shop training and are spending their Saturdays and holidays in various shops in order to acquire this training. Before specialist standing is granted the regulations require that a man shall spend one year in an approved shop. Many returned soldiers are enquiring how best to qualify as manual training teachers. Some of them are highly skilled. I have interviewed several of them and they impress me as desirable men to have in the schools. If the numbers warrant, we might consider whether a short course in pedagogy could not be established in order to qualify these men.

Farm Mechanics in Connection with Agricultural Courses

A recent departure has been the establishment of farm mechanics departments in connection with the agricultural departments of the High and Continuation Schools. So far, three of these have been formed—Whitby, Oakville and Port Perry. The idea at the back of these departments is that the progress of agriculture

and the success of farming operations depends very largely upon the condition of the material equipment of the farm. The work suggested for these departments is as follows: —

(1) To make articles required on the farm or in the home, e.g., wood-box, book-shelf, milk-stool, saw-horse, poultry feed boxes, butter worker.

(2) To put down cement sidewalks about the home; making cement fence posts, water troughs, etc.

(3) To use the farmer's hand forge and to learn to make simple repairs.

(4) To build, repair, and readjust farm gates.

(5) To repair barns and sheds, replacing broken windows, floors, partitions, steps, etc.

(6) To plan, make out bill for material, purchase, and build new poultry house, pig pen or shed.

(7) To build in new ventilators in stables.

Liberal grants are provided by the department and the work is meeting with much success. The aim is to carry on only such work as has a definite relation to that required on the farm. Mr. W. J. Black, when Commissioner of Agriculture, inspected the work of these schools and expressed the opinion that the work being done was just the kind required.

The method of procedure at Port Perry is interesting and instructive. The only accommodation available was an old woodshed, and it was decided to adapt this for the purpose. For several weeks the boys were divided into two classes of four each and they worked with the expert carpenters and cement men, and under their direction did a large portion of the work on what is to be the Farm Mechanics building. They jacked up the woodshed, cleaned it out, prepared the foundation and the whole floor space, and put in a cement foundation and floor.

The boys repaired and adjusted several pieces of furniture about the school, repaired a cupboard for the Household Science department and the tables and chairs in the Agricultural class-room. Home projects received considerable attention, and among these, after due care and deliberation, some of the boys have decided to construct small outbuildings at home, one a woodshed, one a chicken house, and one a pig pen. Another boy is preparing to lay a cement floor in one of his home farm buildings.

At Whitby, the farm mechanics shop is fitted with benches, tools, and forges. This room has proved too small for the work intended, and the boys are engaged in fitting up another shop. They have lined a part of the old gymnasium with building paper and are covering the walls with matched lumber. In this connection they will have to put in at least three doors and do the finishing around six windows. In addition to this each boy is planning to make a carpenter's bench for himself to take home at the end of the term. Other articles they made or have in the process of making at the present time are: fruit-picking ladder, saw-horse, trap nests, chicken fattening crates, nail boxes, etc.

The class in Oakville has also done good practical work. They have built the work benches they use and have made various articles such as a cement scraper, cement trowel, chicken feeder, fattening crate, model of farm gate, saw-horse, etc. In each case they made a working drawing and freehand sketch and prepared a bill of the material required.

Work of the character being done in these schools has a direct bearing upon the agricultural processes of the farm, and is viewed with great favour wherever it has been introduced.

Number and Location of Household Science Centres

There are ninety household science centres in operation in urban municipalities. These are situated in the following places: Belleville, Brantford, Brockville, Chatham, Collingwood, Cornwall, Fort William, Galt, Guelph, Hamilton, Ingersoll, Kingston, Kitchener, London, Niagara Falls, Niagara Falls, South, Ottawa, Owen Sound, Paris, Port Arthur, St. Thomas, Sault Ste. Marie, Smith's Falls, Stratford, Toronto, Walkerville, Windsor, Woodstock, Cobourg, Sarnia, Peterborough, and Port Perry.

Lack of Illustrative Material

The schools are all well equipped in the traditional manner, but are usually lacking in what may be called illustrative material. In every household science department there should be a collection of food products, both in their raw and manufactured states. Various manufacturers send out specimens showing the processes in the manufacture of their goods. Charts, showing the chemical composition of various food stuffs should be provided and every effort made to obtain such a collection of charts, illustrations and specimens as will give life and vitality to the multifarious problems with which Household Science should deal. Charts and models illustrating the principles of plumbing and ventilation should also be provided.

Character of the Work

The teaching of cookery is not simply the preparation of certain dishes, but includes much instruction in the nature and use of food, and the difficult art of choosing suitable nourishing and at the same time economical articles of food in order that the smallest incomes may stretch to meet the needs of even the largest families. As Ruskin says: "To be a good cook means the knowledge of all fruits, balms and spices and all that is healing and sweet in fields and groves, savour in meats; it means carefulness, watchfulness, willingness, and readiness of appliance; it means the economy of great-grandmothers and the science of modern chemists; it means much tasting and no wasting; it means English thoroughness, French art and Arabian hospitality; it means in fine that you are to be perfect and always ladies (loaf givers) and you are to see that everybody has something nice to eat."

I am pleased to note a growing tendency to place a wide interpretation upon the term "Household Science." Up to a recent date there was a strong tendency in many quarters to regard it as cookery only.

This branch is of great importance, but we do not live in the kitchen. The bed room, the bath room, the dining room, should also receive due attention, and for this reason the kitchen should not be regarded as the unit of equipment. The best schools in England and the United States are taking the whole house as a unit and their household science departments consist of kitchen, dining room, bed room, bath room, living room, etc. Several of the schools in the Province are adopting this plan. Some of the public schools in London and the Collegiate Institute in London have such apartments. In one or two of the Toronto schools, experiments are being conducted with a new type of equipment. A large room is divided by screens to represent the different rooms in the house and furnished accordingly. The girls are divided into groups and each group takes turn in working in the different rooms. This plan promises to give a more all round training than the one room used as a kitchen only.

Sick room cookery and home nursing should be given an important place in the curriculum of these schools, for though teaching people how to keep well

is one of the main purposes of household science, yet sickness will come and it is almost a commonplace to say that good nursing cures more patients than good doctoring. The care of young children is particularly important. Beyond doubt many children are sacrificed every year through want of attention—improper food and unsuitable clothing. A few straight heart to heart talks to the older girls, given by a tactful teacher, would be calculated to do much good. At the Girls' Technical High School, in New York, a very young baby is brought into the class and lessons given to the older girls on its bathing and general care. Though there is not perhaps the same necessity for instruction of this kind as exists in the crowded cities of England and the United States, there is still need for some of it, and as the towns and cities become more crowded the necessity will become more pronounced.

Household science throws light on all that group of facts and principles that has to do with a wise, economical and successful management of the household. It does not confine its interests to the chemistry of cooking or to nutritive values and comparative cost of various kinds of foods. It gives careful attention to pure water, pure food, personal and public hygiene, and to other topics that are closely concerned with health in the family and in the community. It deals also with lighting, heating, plumbing, sanitation and ventilation, and aims to show how the latest results of scientific research will contribute to greater economy in the home and longer useful service to society. Household Art has also an economic bearing upon individual and social life, and in addition to this, it has a refining influence upon the student because it helps to develop an appreciation of the beautiful and artistic and adds much to the capacity for enjoyment and service. These subjects are therefore of the highest importance because they bear an intimate relation to that most fundamental of all institutions—the home. Whatever ministers to its attractiveness and comfort makes a valuable contribution to the highest welfare of society. It is the opinion of many sociologists that of late years the influence of the home has been on the decline, and everything possible should be done to furnish such training for the future homemakers so that they may be able to meet adequately their heavy responsibilities.

Instruction in Sewing

In the majority of centres above enumerated, efficient instruction is being given in plain sewing and exceedingly good results are being accomplished, as is shown by the various local exhibitions of the work of the schools. This work is organized better in the City of Ottawa than anywhere else in the Province, and the efforts made here, and the results accomplished under the management of a special Supervisor of Household Science are well worthy of study by other Boards interested in this subject. The city of Hamilton has appointed a special director of sewing in the Public Schools and good results are expected from her work.

There is, however, a large number of schools throughout the Province where no sewing is taught, and for many reasons this is much to be regretted. Every English elementary school devotes at least two hours per week to this subject from the lowest grades to the end of the Public School course. The importance of the subject can scarcely be over estimated. The failure to teach it can hardly be understood, particularly when it is remembered that the equipment necessary is of the slightest and might reasonably be expected to be possessed by every girl. By needlework is not meant ornamental work, but ordinary plain everyday sewing. Every girl should be taught to use the needle, thimble and scissors well, quickly, and easily. This is far more readily accomplished when she is between seven and twelve

years old. The hand, the greatest and the most delicate of all instruments, is then supple and far more easily trained than at any other period. The mind is alert and the practice necessary to gain some degree of skill is not then looked upon as drudgery, as is often the case in later life.

Girls delight to sew, especially with their companions, and are interested when a graded course is followed, which they can see begins with simple exercises and increases in difficulty step by step until they find themselves able to cut, make and fit a garment, first perhaps for a doll and then for themselves.

Ruskin says: "Learn the sound qualities of all useful stuffs and make everything of the best you can get, whatever its price, and then every day make some little piece of useful clothing sewn with your own fingers, as strongly as it can be stitched, and embroider it or otherwise beautify it moderately with fine needlework such as a girl may be proud of having done."

Rural Schools

The manual training and household science dealt with so far in this report has concerned town and city schools, but the rural schools must not be neglected in this connection. If these subjects are as important as all educationists and intelligent public men now think they are, is it not a lamentable fact that a large number of the children attending the rural schools are not reaping the advantages they are capable of conferring? In my report for 1906 it was noted that nearly fifty-eight per cent. of the school population was being educated in the rural schools. That percentage has now fallen to nearly forty-six, and may not the reduction in the rural population indicated by these figures be attributable in part to the lack of educational advantages to be found in the country. It is neither Christian nor politic that nearly forty-six out of every hundred children should be deprived of the advantages of newer methods and modern practice which scientific researches in pedagogy have brought about. Of course the percentage of children not receiving manual training and household science instruction is much greater than this when it is remembered that many children in urban schools are not yet receiving this instruction, but it is the rural situation that is now being dealt with.

Surely the country child has a right to as good an educational opportunity as the child attending the best town or city school, and in order that this result may be assured much more money must be spent on the country school and it must be spent in a better way. It is unfortunate that we cannot consider educational problems without being hampered by the question of money, but we should at least look upon this expenditure in the right way. As a matter of fact, the money devoted to educational purposes, if spent wisely, is not expenditure. It is an investment in gilt-edged securities and will produce greater dividends than any bonds, stocks or shares, the world has yet known. The returns from this investment will be finer individual characters, more efficient men and women, and a higher type of citizens.

The money spent on the rural school must not be spent with the idea of making it like the city school. This is neither necessary nor desirable. A different environment renders necessary certain differences in organization and method, but equal opportunity should be provided. The opinion has been frequently expressed that the boy in the country, the boy on the farm, does not need manual training, as he gets enough of it in performing his daily tasks. This opinion is based very largely on the assumption that manual training and manual labour are terms of like meaning. Calvin Milton Woodward, one of the pioneers of the manual training movement, says on this point: "We are frequently told that the boy from the farm has had manual training, and it is true that he has had some manual train-

ing, but he has had a great deal of manual labour with it. I know because I was a farm boy and learned everything that could be learned on the farm previous to my college course. I learned to use correctly the hoe, the shovel, the plough, the scythe, the cradle, and the axe, but I never learned the proper use of bench tools. I knew nothing of drawing, nothing of the mechanical arts properly so-called. Nineteen-twentieths of my time was spent simply in hard labour, which had no education beyond an incidental and imperfect knowledge of crops and soils and the market. Manual training would have been of great value and a few lessons would have saved me much labour, time, and money."

The idea expressed in the above quotation is one that has hindered the spread of manual training in the rural schools. Another prevalent idea is that if the subject be taken the methods adopted must conform to those of the towns and cities. Any rural community that attempts to inaugurate this subject on the city plan is making a grave mistake.

The rural school has its own problems, and these problems are essentially different from those presented by a town or city school. The country school is fortunate in many respects, but in none more so than in the fact that it is surrounded with material and means for the best kind of manual training. In my report for 1906 a drawing was given of a cheap and efficient bench, and in the Manual Training Manual, issued by the Department, full directions are given for making a bench. This manual is now being revised and the revision will lay special stress on the requirements and possibilities of the rural school. There is no reason why every rural school should not have at least one bench and a set of common tools. Much lasting good could be accomplished by these simple means.

This work should keep in view the tools the boy will probably have at home and may well be directed to the making of articles which can be put to some immediate use at home or in the school. If in the school there are a number of large boys, the carpentry may well expand within a year or two so as to undertake the enterprise of building a small shop on the school grounds and fitting it up for working purposes. In several schools a light basement has been adapted to this purpose, and in others a bench has been built in one corner of the class-room.

With the right kind of a teacher, exercises may be given in the sewing of leather and in the splicing of ropes and knotting finding practical application in the mending of harness, making of halters, etc., as the necessities of the farm may require. Some practical lessons in painting and glazing may be given, and opportunities are not lacking for applying the knowledge and skill thus gained to the school or farm buildings. Tumbledown fences, broken window panes, sagging doors, broken locks or latches, ill-kept grounds, untidy paths, broken chairs and ricketty tables will not be found where all have pride in their school and the boys have been taught how to make things and do simple repairs. Many country schools in the Province are paying attention to these things, and with proper encouragement the outlook for the future is bright.

Household Science in Rural Schools

For the past twelve months my attention has been largely concentrated on the country schools, particularly in the direction of household science and the provision of a hot dish for the noon-day lunch of those pupils who are compelled by the distance they live from the school to take their lunch packed in a box or other receptacle. In this connection, I have addressed Teachers' Institutes, County and Township Trustees' Associations, Women's Institutes, Normal Students, and have

visited a large number of rural schools in company with the Public School Inspectors and have met the trustees of individual schools. I have invariably found the rural school trustee willing to listen, and in a large number of cases they are ready to allow the teacher liberty to work out the scheme of simple household teaching combined with the serving of a hot dish at noon.

It may be of interest to outline in detail the steps that have been taken in this connection.

Instruction in Normal Schools

1. The instruction in this subject in the Normal Schools has, for the past eighteen months, been specially directed to the needs of the rural schools. Generally, methods have been outlined and worked out with the limited possibilities of the one room school in view. The instructors in the Normal Schools have been expected to visit the rural schools affiliated with the Normal in order that they might see the conditions that have to be met and to devise the best ways of meeting them. In this connection the Normal Schools should be regarded as a sort of clearing-house and a source of information for the teachers of the district. This idea is being worked in several of the schools. The work being done by the Hamilton Normal School may be taken as an example. Here, Dr. Morgan, Mr. Robinson, the Public School Inspector, Miss Elliott, the Instructor in Household Science, and Mr. Painter, the Manual Training Instructor, are all co-operating in an active campaign to introduce household science and manual training into every rural school in the County of Wentworth, and their efforts are meeting with the greatest success. A number of the teachers in the schools of this county have asked that Saturday morning classes be established in order that they may meet the instructors for the discussion of the difficulties and problems they meet with in the actual teaching of these subjects in their schools. When teachers are willing to give up Saturday mornings for professional improvement and in order that they may render better service to the community in which they are working they should be given the greatest encouragement, and I recommend that such classes be formed wherever requested. In some of the Normal Schools such as Hamilton and Peterboro', the instructors devote part of their time to public school teaching of manual training and household science. They should be relieved of this work, and the time thus gained could be very profitably spent in visiting the rural schools to assist the teachers of these schools. Notwithstanding the triteness of the saying, "As is the teacher so is the school," I very much question whether we even yet recognize its importance. These newer subjects depend almost entirely upon the sympathy, the initiative, and the resourcefulness of the teacher, and I venture to say that, given a sympathetic, willing teacher, that there is not a school in the Province where much useful work along these lines may not be done. The suit-case teacher who packs her grip at noon on Friday, takes it to the school with her, catches the first train after or sometimes before four o'clock, and shakes the dust of the section from off her feet and puts all thoughts of her work out of her head till it is time for her to catch a train on Monday morning, is not unknown. Recognizing the importance of the teacher, no efforts should be spared to give our Normal students the fullest equipment in these newer subjects. The time that they are able to spend on manual training and household science is very limited, and some such plan as the Saturday morning classes above referred to would do much to overcome this obstacle.

Special Equipments for Rural Schools

2. Recognizing the fact that the introduction of household science into the rural schools has been hindered by the prevalent idea that a separate room, elaborate equipments, plumbing, etc., were necessary, special equipments have been designed and a modified form of equipment suitable for use in the rural schools is in use for demonstration purposes in most of the Normal Schools. Such equipments were first designed in Hamilton and London Normal Schools by the co-operation of the manual training and household science teachers. These equipments are now in successful use in many rural schools. One firm in the Province is making a special effort to popularize these and has set apart a room in the store for the exhibition of both the manual training and the household science equipments. These exhibitions are continually being visited by interested teachers and trustees. The equipments consist of a two or three flame burner oil stove, enclosed in a cabinet, and a small cupboard containing the necessary utensils. When not in use, there is nothing to show the special character of the equipment. It occupies but a small space and can be placed in a corner of the ordinary one-room school. To the designing of this equipment, I attribute much of the success that has attended our efforts to introduce household science and the school lunch into the rural schools, and the thanks of the community are due to all who have co-operated in its production.

Summer Schools

3. In 1918, for the first time, a grant was provided to pay the expenses of teachers attending the summer schools in household science after they have taught the subject for one year. Previous to this year teachers attending summer schools in household science did so at their own expense. Under these circumstances the teachers were of course financially predisposed to take courses in Agriculture in which their expenses were paid rather than in Household Science, and this is a handicap no subject should be asked to work under. These subjects are equally important and some teachers are best fitted for one and some for the other, and they should be free to choose, unhampered by financial considerations. Manual training has still to meet this handicap, and this condition should be remedied in the arrangements that are being made for the next summer school.

Grants in Aid

4. Grants have been provided in order to aid trustees in installing the equipment and for its maintenance afterwards, and to encourage the teachers with an extra grant when a hot dish is served for the school lunch. The financial objection raised by trustees is thus almost entirely removed. The scheme now in force makes it possible for any teacher with a Normal School diploma to teach the subject, and the too frequent changes of teachers in the rural school will not interfere with the continuity of the work so much as formerly.

Co-Operation of Public School Inspectors

5. The introduction and success of these subjects depend very largely upon the sympathy and co-operation of the Public School Inspector. With the object of securing that sympathy and co-operation the Inspectors attending the Summer School in Agriculture at Guelph were addressed on the subjects and official circulars have been issued to them at various times.

6. At the beginning of the school year, I planned to spend a week or more with Public School Inspectors visiting their schools, with the object of influencing

the teachers and trustees in this direction. This plan was carried out in a number of cases, but many of the schools were closed for prolonged periods on account of the influenza epidemic, and this somewhat interfered with the scheme. I am convinced, however, that the most good can be accomplished by getting into active personal touch with the trustees and the teachers. This and other features of the work are growing to such an extent that I need assistance if the ground is to be properly covered. The Inspectors are remunerated at the rate of $8.00 per school in which agriculture is taught. No such condition exists in the case of manual training and household science. I will not draw any conclusion, but content myself with expressing the hope that the time is not far distant when inspectors will be paid an adequate salary, not depending on the fact that agriculture, manual training, household science or any other particular subject is taught in their schools.

Manual on Household Science for Rural Schools

7. In order to assist the teachers in equipping their schools for this work, teaching the subject and serving the school lunch, a manual has been prepared, entitled, "Household Science for Rural Schools." This gives the fullest information and help and has been well received. The Director of Women's Institutes has asked that two copies be sent to each Institute in the Province, and it is hoped in view of the influence and importance of these organizations that arrangements can be made to carry out this request. There is no other organization in the Province that can do so much for the rural school as the Women's Institutes, and I am taking every opportunity of addressing them on this subject and am ready at all times to accept invitations for this purpose.

The Hot Dish for the Rural School Lunch

I attach great importance to the school lunch, and the hot lunch at noon offers one of the best methods of approach to household science. Owing to the fact that many pupils live far from the school, it is impossible for them to go home for the mid-day meal, and they are thus dependent upon lunches which they bring with them. Very frequently they are allowed to eat their lunches where and how they please, and the method chosen is conducive neither to comfort nor to health.

In many cases the lunch does not attract the pupil. It is often carried without proper wrapping in a tin pail and it then absorbs the taste of the tin: again, it is often wrapped in a newspaper and is flavoured with printer's ink; occasionally it is wrapped in cloth not too clean. Conditions such as these are not fair to the pupils. They come a long way to school, often over poor roads: and it is necessary, for both their physical and their mental development that they should receive adequate nourishment served as attractively as possible. In practice the advantages of the hot lunch have been proved to be as follows:—

(1) It enables the pupils to do better work in the afternoon.
(2) It adds interest to the school work and makes the pupils more ready to go to school in bad weather.
(3) It gives some practical training and paves the way towards definite instruction in Household Science.
(4) It gives a better balance to meals, and as compared with a cold lunch it aids digestion.
(5) It teaches neatness.
(6) It gives opportunity to teach table manners.
(7) It strengthens the relationship between the home and the school.

Consolidation of Rural Schools

We shall not be able to do all we can in the rural school until we have a system of consolidated schools. However, it would not be wise to wait, but do what can be done under existing conditions, and there will always be certain districts where consolidation is not feasible or for various reasons cannot be brought about. One of the earliest arguments urged in favour of consolidation was its greater economy as compared with the old district system. However, in the gross amount of money expended consolidation as a rule costs more, and this fact should be squarely faced. It has been proved beyond contradiction, however, that the cost per pupil per month at the small school before consolidation is greater than the corresponding cost after the consolidation. That method which is the most successful in getting the largest number of children into a good school for the greatest number of days is in the last analysis the cheapest.

The farmer should not be told that consolidation costs less, but that he is getting better value for the money he is spending. He must be taught to apply to his expenditure for education the principles he applies when he is purchasing a binder, a plough, or any other piece of farm machinery. If by the expenditure of a few dollars extra he can get a much better article it is economy, as a rule, to purchase the article costing the larger sum.

There are enough examples of successful consolidation in the United States to prove that when properly conducted it will solve many of the problems of rural education. Admitting this, the next question is how it may be brought about. If our schools were managed by county or township boards of trustees consolidation would be a comparatively easy matter. Under the present state of the law the people themselves must vote on its adoption. The voters in the districts where consolidation is most needed are often loath to change, unprogressive in educational affairs, jealous of those living in other districts, and lacking a proper conception of the importance of the best educational facilities. It has been said "Progress by consent of the voters is a slow and arduous undertaking. Matters involving the fate of nations are often settled more easily than are proposals for the improvement of the rural schools." Under these circumstances a campaign is generally necessary in order to induce the people to adopt the plan. First, the general school situation in the county should be studied. Unless this be done, several very undesirable things are likely to happen: a few isolated one-room schools may be left too far from the central school; schools may be placed in districts where the population is changeable, necessitating a change later to a more favourable location; and more consolidated schools are likely to be organized than are actually required. This latter danger should be more carefully guarded against than in the case of the school section, as a consolidated school unwisely located may easily encroach upon the field of neighbouring schools and thereby become a source of permanent irritation and annoyance.

The data to be obtained in the study of the county situation consist of information regarding the location and value of each school and its equipment, the distances the schools are apart, the number of teachers employed, together with their salaries and qualifications, so as to obtain some indication of the educational conditions of the community; the location of the farm homes, the condition of the roads, topographical features, such as streams, hills, etc. the number of pupils, their ages and scholastic attainments, the population depending upon each school, and the distance at present travelled by each pupil to reach the nearest school.

The data should be indicated on a map of the county, with all proposed consolidations, the suggested wagon routes, and the probable number of pupils to each school. Such a map will give a clear and comprehensive view of the school situation as a whole. The compilation of the data does not mean that a widespread agitation for consolidation throughout the whole county should be begun at once. This would be a most unwise proceeding and would probably lead to failure. There are many communities that would strenuously oppose such a movement; there are many others with an open mind toward consolidation. In many localities the subject is not understood. In some places the opposition is stronger than in others, and this opposition may be best overcome by an actual examination of a school of the new type.

The adoption of consolidation depends not only upon the way the people regard it, but also upon the feelings that exist between the communities that are to be parties to the consolidation. A community in which the best educational spirit prevails should be chosen for the initial experiment. The agitation should not be sprung upon the people suddenly, nor should they be given the idea that consolidation is to be forced upon them. A small committee consisting of the teachers of the schools to be consolidated might first be formed. The early discussions should be for the purpose of giving information and not for argument. This information can be given by visiting in the homes and by describing some good schools to the children.

This quiet campaign of instruction may be followed by a series of educational meetings at the schoolhouse and the church, and discussions through the newspapers. The normal school, the church, the high school, and the agricultural college should all be called upon for aid. The chief point to be aimed at is the creation of a desire for co-operation, and a broader, closer relationship between the different communities; and if this can be accomplished, many of the difficulties will vanish.

By this time the district may be ready for a really aggressive campaign. It is an excellent plan to have at this stage a lecture illustrated by lantern slides, picture charts, etc., given by some person who has made a thorough study of consolidation. The Department of Education should provide this. Meetings of the people should be held in every schoolhouse, and combined meetings of all the sections should be held later. At these meetings the methods proposed for adoption and the advantages to be gained should be laid clearly before the people, questions being invited and the fullest discussion encouraged.

If the district has any wealthy farmers it might be possible to induce them to look upon the consolidated school as a fit object on which to expend their wealth. Why should not the rural school be endowed as well as the university? The whole agitation should be kept up until the people are thoroughly aroused, and the vote should be taken when the interest is well established. In view of the splendid possibilities for the efficient teaching of agriculture, manual training, and household science, and the general reorganization of country life, which the consolidated school provides, any efforts that may lead the people to adopt consolidation will be amply repaid in the securing of a richer country life and a more decided vocational efficiency among the dwellers in the open country.

Letters from Teachers

I may conclude this report with quotations from letters received from teachers who have lately commenced the teaching of household science in connection with the hot lunch:—

"I must thank you for converting the trustees here. We have all the equipment for the hot lunches and began work last Tuesday. They have been successful so far, even though the cocoa did scorch once. At the annual meeting it was voted on and carried unanimously. Besides being good for the children, the honour even of giving out teaspoons is a goal to be sought for by the first class. So we all have the benefit. Thanking you for your kindness."

"I am one of the teachers who was present at the recent trustees' meeting in Shelburne, and wish to introduce the "Hot Lunch" system in my school. For that purpose we held a ratepayers' meeting to-night and the motion was adopted with a large majority."

"We have got the hot dish for lunch going. The Board did not favour it, but as the children were anxious we are going to manage it with no cost to the Board but the oil used in cooking. Our variety covers only three dishes yet—cocoa, apple sauce and soup—but by the end of the month we hope to have macaroni and cheese and scalloped potatoes. . . . The interest in what we have attempted so far has been excellent. The boys peel the apples and wash the dishes as cheerfully as the girls do."

"A boy of twelve came to me last May who was known in the surrounding country as a 'tough one.' I soon discovered that he was on the downward road and travelling very quickly. . . . I am glad to say I can see a great improvement in him and I firmly believe that more was accomplished by securing his interest in school through manual training than any other way. He was very fond of using tools and has been a good help to me in successfully commencing the new work in our school. . . . The school is one-roomed, there being no basement. But with all we found plenty of room for the equipment. I am having a work-bench made by a carpenter in my section and have planned it so there will be a large drawer which can be locked, with compartments for the tools. . . . . I find that the children are very careful with the equipment and take great pride in the care of it. Each child has a book in which his sewing is kept, also the recipes given in the cooking lessons. As the equipment itself costs more than the amount of the grant this year I am depending on the children to help with the supplies and they have not as yet needed a hint. Since the first sewing lesson contributions ranging from the finest silks to the coarsest material, not mentioning the needles and thread of every hue, have been brought until I have to stop them. . . . I am very glad I put my boys in the sewing and cooking classes. They are as interested as the girls and are really doing the better work and the girls do enjoy the manual training. In the manual training we are spending the first few lessons in mending any broken furniture about the school. . . . One day the boys caught a rabbit at recess and the children begged to have that rabbit for dinner, so I superintended the dressing of it, and we roasted it in the toaster, and if you care for rabbit meat at all you would have enjoyed a morsel of that, because it really was delicious."

"In our school we have a large table which we use each day for dinner. Two girls spread the table cloth; another places the flowers in the centre. Each girl in II, III, IV grades has her work to do, and in five minutes the table is set."

"It is such a splendid undertaking that I wish I could do 'missionary work' along this line in every school in the vicinity. We need you, Mr. Leake, for this work. If you could visit every section we soon would have household science in every school. Truly it is 'missionary work,' for the heathen are not all in foreign lands. When the teachers who are real 'live wires' have to deal with School Boards who are as 'dead as door nails,' believe me it is martyrdom. I explained this phase of the Household Science to my secretary-treasurer, and he seemed a little favourable. A week later I learned that he had interviewed the rest of the Board, and they opposed the entire scheme, calling it all 'new fangled nonsense,' and suggesting that the sooner such nonsense was stopped the better for the school. I requested a meeting of the Board. After I had preached my little sermon the entire Board was enthusiastic for the 'hot dinners' and wrote out the $40.00 cheque for me with instructions to instal in the school room the necessary equipment at once. This we have done."

"The main obstacle, of course, was the financial one. Since the trustees could not be persuaded to furnish the money for utensils, I bought the necessary ones, and the children each brought a little money from home for the necessary supplies. . . . We made a very nice cupboard with several shelves in it. Each child has his own nail for his cup and place for his spoon. On one shelf we keep supplies, on another towels, and utensils on another. Over the front we have a pretty curtain. . . . The children are all so interested in work of this description and appreciate the hot drink so much. It seems to make them more anxious to attend school, and I also find their afternoon's work is much improved."

In concluding this report, I wish to thank you, sir, for the interest you have displayed in the work in which I am engaged and for the encouragement you have already given me in its prosecution. My thanks are also due to the Deputy Minister and to the Superintendent, who have been always ready with reliable advice and helpful suggestions in dealing with situations that are often troublesome and difficult.

I am, yours obediently,

ALBERT H. LEAKE.

Toronto, January, 1919.

APPENDIX F

REPORT OF THE INSPECTOR OF ELEMENTARY AGRICULTURAL CLASSES

To the Honourable H. J. Cody, M.A., D.D., LL.D.,
Minister of Education for Ontario.

Sir,—I beg to submit for your consideration a report on the Elementary Agricultural Classes in connection with the schools of the Province for the year 1918.

I have the honour to be,

Sir,

Your obedient servant,

J. B. Dandeno,

Inspector of Elementary Agricultural Classes.

January, 1919.

The duties of the Inspector of Elementary Agricultural Classes include: (1) The inspection of Agricultural classes in Collegiate Institutes, High Schools, Continuation Schools and in Normal Schools; (2) a general supervision of the teaching of Agriculture in the Public and Separate Schools, including the approving of teachers' reports and trustees' statements; (3) attendance upon Teachers' Institutes and taking part in the programmes as frequently as possible; (4) visiting Secondary Schools which have not yet introduced classes in Agriculture to discuss the situation; (5) addressing public meetings, such as township institutes, county trustees' associations, county councils and the like, with the object of explaining the situation with respect to the teaching of Agriculture in the schools; (6) a supervision of the Summer Courses for teachers at the Ontario Agricultural College.

Ungraded Schools

Agriculture is quite rapidly becoming established throughout the Province of Ontario as one of the subjects of the Course of Study. The subject is optional and Boards of Trustees may introduce it or not as they see fit. There is a considerable feeling among Inspectors, Teachers and others that this subject should now be made an obligatory subject in all rural schools. As there always has been, and is still, a feeling among the farmers themselves in opposition to the introduction of Agriculture, it would seem to be the wisest mode of procedure to break down this spirit of opposition by propaganda and argument, by example and illustration, rather than by a prescribed regulation. The work is making such satisfactory progress without any compulsion that, for the present, at least, it should

be left as an optional subject. If the subject, as an option, becomes general we shall be justified in assuming that the country people are not only ready to support it, but are convinced of its importance as a regular subject for the curriculum of a rural school. The following quotation indicates something of the general situation:—

> When we started teaching agriculture the majority of the people were opposed to it. They are rapidly changing their opinion now. One of the most prejudiced men even invited me to take my class to see him pack his bees for winter. We went. . . . . Next year we will have a school garden on the school grounds.
>
> M. A. Foley, *Teacher*,
> Hudson School, Nipissing.

Opposition is rapidly passing away, and in a recently settled district, such as Nipissing, the work is especially applicable.

If the young pupils are induced to take a greater interest in Agriculture the parents are also likely to do so. The following statement, not at all uncommon in reports from schools in which this subject is taken, calls attention to what is one of the best features of the work:—

> Pupils now look on farming as one of the most dignified and useful forms of labour in which they can engage.
>
> A. E. Scott, *Teacher*,
> Schumacher, Algoma.

The influence upon the home life of the pupils may be inferred to a certain extent from this quotation:—

> I am sending you a few specimens of potatoes and other vegetables taken from our school garden. The pupils and community have taken a great interest in our school garden and have given considerable time and energy to make it a success. We realized some $15.00 from the sale of the products. This is being utilized in getting pictures to decorate our school. A number of the pupils who will be leaving school next year are planning to have gardens of their own to make pocket money for themselves.
>
> Mina Currie,
> S.S. No. 2, Devlin, Rainy River.

The work of the school garden has therefore some direct influence upon the occupation at home. This being the case, pupils will likely see greater possibilities in farm life and, therefore, will not be influenced to so great an extent by the lures of the large city.

To make the best out of the teaching of Agriculture in the rural schools, some, or all, of the material grown in the school garden should be used in the school for the noon lunch. In this way a certain amount of domestic science of the very best kind can be carried on. Note the following:—

> Some of the produce—two bags of potatoes—of the garden were kept for our hot noon lunch. . . . Each child brought a soup dish, cup, spoon, fork and table napkin. All but the largest of the cooking utensils as well as additional supplies were brought in. The Board supplied the oil stove.

This is the best possible use that could be made of the produce of the school garden. In some schools certain material was canned for use in the classes. The foregoing related particularly to schools in the newer parts of the province.

The school garden is rapidly becoming an essential part of the equipment for the teaching of Agriculture, and also an important factor in domestic science. The following taken from a report by the teacher bears out this point:—

> I feel sure that the work was successful and that the pupils were interested. We had a garden 100 feet by 150 feet, and in it we grew vegetables from which we sold about six dollars' worth, and the rest we put in the cellar for use by the domestic science

class for noon lunches during the winter—one and a half bags of potatoes, ten baskets of carrots, three baskets of beans, two baskets of parsnips, and two baskets of kohl rabi and salsify. The domestic science class canned six baskets of tomatoes and dried five dozen ears of corn all obtained from the garden.

E. M. Moffatt, *Teacher*.
Ancaster.

It should be noted that the practical side, important in its way, is only secondary when compared to the educational side. The lessons in cultivation of the crops named and the experiments in canning both have to do with far-reaching problems in science. Quoting from another report:—

Agriculture has been taught for several years in this school, with which there has been a school garden for experimental work. Each year has shown an increased interest, not only of pupils, but also of parents, who have donated seeds, flowers, bulbs, etc., for vegetable and flower gardens. For two years the pupils have worked with a "cold frame" in which has been grown lettuce and radishes for early use and other plants for transplanting. The products of the garden were exhibited this year for the first time at the County Fair.

A. L. Dunning, *Teacher*,
Cumberland, Russell Co.

As has already been pointed out, the work of the school in this direction particularly has an important bearing upon the homes:—

A few out-door bulbs and hardy perennials grown at school have been so interesting and satisfactory that perennial borders are appearing in different parts of the section. Along with this might be mentioned a well-kept lawn that has set a good example which several have followed.

C. E. Smith, *Teacher*.
S.S. No. 3, Edwardsburg.

Quoting from another teacher in the same county:—

Our school grounds are about one acre in extent, and therefore will not permit of having a large school garden. The location of the grounds is, however, ideal, situated as they are on the banks of the St. Lawrence on the main highway between Brockville and Prescott.

N. Powell, *Teacher*.
S.S. No. 1, Augusta, Blue Church School.

What an influence for good is a well kept school ground on the main road. In some cases, where the Board has provided a lawn mower as part of the equipment, the boys have not only trimmed up the grass on the ground about the school building, but also the roadside in front.

Occasionally we hear objections offered to the teaching of Agriculture on the ground that it might interfere with the work of the regular obligatory subjects. There is nothing in this objection as stated in the following:—

We do not find that agriculture in any way interferes with other branches of study; on the other hand, it furnishes material for many lessons in other subjects—art, nature study, geography.

F. Metcalf, *Teacher*.
S.S. No. 11, Augusta.

The improvement of conditions contributing to the education and development of rural school pupils is of far-reaching importance. The standing of Canadian citizenship in the future rests largely upon the boys and girls now in attendance at the rural schools. These boys and girls are now working in rural schools many of whose buildings and sanitary equipment are altogether inadequate. Even

the lighting, heating, and ventilation are, in very many cases, not what one would expect to find. When these conditions in country schools are compared with similar conditions in our cities, we can easily see one reason why people move from the country to the city. Why should city children—many of them foreign—have so many more comforts than country children? It is not here contended that city children have better accommodations than should be provided, but rather that country children deserve something better than they now have. They should not be regarded as a by-product merely.

Agricultural education is accomplishing something in the direction of improvement in the matter of increased interest and enjoyment of the school programme and, to some extent, in beautifying the grounds and building; but much yet remains to be done. Farmers are sometimes willing enough to lend assistance when they are led to see what really can be done by a teacher who will lead. In a certain school, when the teacher asked for a fence in front of the school building, the trustee replied that he attended the same school, and if it was good enough for him it ought to do for his children. The teacher took the matter into her own hands, and with the aid of the pupils, boys and girls, levelled up the ground in front, cleared off stones, cans, and wire, and planted a flower bed. She had part of the land plowed up for a school garden. The change for the better was so noticeable that a new fence was put up the next year, new closets built, and in fact the teacher now can get what she asks for.

The teaching of Agriculture has, as a rule, a tendency towards improvement of grounds and buildings. It has also a tendency to increase the interest of the farmers in their schools.

It might be well to point out that the amount of money spent in the encouragement of the teaching of Agriculture in the rural schools is money wisely spent since it promotes, as I have already stated, not only the development of Agriculture and the consequent enrichment of the country, but it also encourages a keener appreciation of farm life. Moreover, through the school gardens and home projects of schools conducting classes in Agriculture, an amount estimated from the reports of teachers and Boards at $120,000, was produced in 1918.

The Close of the War

There is no institution upon which the war situation has so great an influence as that of the rural school; and rightly so, the children in the rural schools are truly Canadian, many of them with two or three generations of Canadian ancestors, and these ancestors are very largely from the British isles. In the cities—the larger cities particularly—foreigners from other European countries are rapidly becoming an important part of the school population; not so in the case of the country schools. And there is nothing surer than that rural boys and girls will become leaders in the Province in the next generation. It will be largely these boys and girls who will shape the destiny of Canada.

The war conditions have caused people to think as never before. People realize now that a large portion of the efforts of human lives have had to do with unessentials. To carry on the war these unessentials were brushed aside and people were brought face to face with fundamentals.

The following list shows the graded and ungraded schools conducting classes in Agriculture during the whole or part of the year 1917. Graded and ungraded schools are not separated in this list:—

Schools with Classes in Agriculture, Calendar Year 1917

ALGOMA—*L. A. Green*
1 Aberdeen & Galbraith
2 Johnston
4 Korah
1 Laird
4 Laird & MacDonald
3 Lefroy
1 MacDonald
2 "
4 "
1 Tarbutt
2 " & Laird
1 Tarentorus
2 "
3 "
2 Thessalon
4 "
3 St. Joseph
4 "

BRANT—*T. W. Standing*
14 Brantford
23 "
15 Burford
21 "
5 Oakland.

BRANT—*E. E. C. Kilmer*
Brantford:
Dufferin
Ryerson

BRUCE—*J. McCool*
7 Amabel
2 Brant
2 Carrick
4 "
6 "
13 "
Tara

BRUCE—*W. F. Bald*
15 Bruce
11 Culross
2 Huron
3 "
13 "
U3 Kincardine
8 Kincardine
9 "
1 Saugeen

CARLETON—*Thos. Jamieson*
6 Fitzroy
3 Gloucester
5 "
U3 North Gower
11 Osgoode
1 Torbolton
5 "

DUFFERIN—*W. R. Liddy*
3 Amaranth
5 "
11 "
4 E. Garafraxa
16 E. " & Amaranth
11 E. Luther
4 Melancthon
6 "
10 "
U 12 Mono & Amaranth
U 13 " & 7 Adjala
1 Mulmur
4 "

DUNDAS—*J. W. Forrester*
Chesterville
1 Matilda
2 "
4 "
5 "
6 "
7 "
8 "
9 "
9½ & 15 Matilda
10 Matilda
12 "
13 "
14 "
15 "
16 "
17 "
18 "
19 "
23 "
Morrisburg
1 Mountain
2 "
3 & 14½ Mountain
4 Mountain
5 "
6 "
7 "

GREY—*H. H. Burgess*
2 Derby
2 " & Sydenham
4 Sullivan
5 "
12 Sydenham
16 "

GRENVILLE—*T. A. Craig*
1 Augusta
5 " & 19 Edwardsburg
7 "
9 "
10 "
11 "
13 "
1 Edwardsburg
8 "
10 "
13 "
14 "
27 "
1 S. Gower
3 S. "
1 Oxford & 5 Marlborough
3 "
5 "
6 Oxford
7 "
8 "
13 "
16 "
17 "

GLENGARRY—*J. W. Crewson*
1 Charlottenburg
2 "
3 "
6 "
10 "
12 "
13 "
15 "
17 "
18 "
U 21 & A. "
9 Kenyon
11 "
15 "
16 "
22 "
2 Lancaster
5 "
6 "
7 "
17 "
1 Lochiel
5 "
11 "
12 "
14 "
Maxville.

GREY—*R. Wright*
2 Bentinck
8 "
9 Egremont
9 Glenelg
16 Normanby

HALTON, etc.—*J. M. Denyes*
14 Beverly
U.A.E. Esquesing
1 Esquesing
2 "
3 "
6 "
3 Nassagaweya
5 "
6 "
3 Nelson
4 "
8 "
11 "
15 "
2 Trafalgar
3 "
6 "
7 "
8 "
18 "

Schools with Classes in Agriculture, Calendar Year 1917—Continued

HASTINGS—*J. E. Minns*
12 Huntington
13 Hungerford
6 Madoc
7 "
11 Marmora
3 Rawdon
13 "

HASTINGS—*H. J. Clarke*
2 Sidney (Avondale)
2 " (Bayside)
5 "
13 "
19 "
20 "
22 "
23 "

HASTINGS—*H. J. Clarke*
1 Thurlow
3 "
9 "
12 & 14 "
20 "
22 "
4 Tyendinaga
10 "
11 "
14 "
15 "
29 "

HURON—*J. E. Tom*
8 Ashfield
Bayfield
Exeter
4 Goderich
2 Hay
3 "
6 "
7 "
8 "
14 "
6 Stanley
14 "
4 Usborne
5 "
6 Usborne & Stephen
2 W. Wawanosh
3 "
17 "

HURON—*J. M. Field*
8 Gray
11 "
4 Morris & Turnberry
11 "

KENT—*W. H. G. Colles*
3 Camden
U3 " and Chatham
4 "
U4 "
5 "
8 "
10 "
12 "
1 Chatham & Camden
2 " "
4 "
18 "
1 Harwich
2 "
2½ " & Raleigh
3 "
4 "
5½ "
6 "
7 "
9 "
10 "
11 "
12 "
13 "
13½ "
14 "
17 "
1 Howard
2 "
3 "
4 "
10 "
12 "
14 "
16 "
2 Orford
3 & 4 "
9 "
10 "
11 "
12 "
3 Raleigh
3 " & Harwich
4 " "
5 "
10 "
1 Zone
2 "
3 "
4 "
5 "

KENT—*J. H. Smith*
1 Chatham
2 "
3 "
5 "
6 "
6 S. "
7 "
8 "
9 "
10 "
11 "
14 "
17 "
19 "
2 Dover
4 "
5 "
6 "
8 "
11 "
12 Dover
14 "
5 Raleigh
U6 " & Dover
7 "
9 "
12 "
1 Romney
2 "
4 " & 12 Mersea
5 "
7 "
1 Tilbury E. & Raleigh
2E " E.
2W " E.
3N " E.
3S " E.
3M " E.
4 " E.
7 " E.

LANARK—*F. L. Michell*
2 Bathurst
3 "
4 "
5 "
6 "
12 "
18 "
1 Burgess
7 "
6 Dalhousie
11 Drummond
12 "
13 "
15 "
16 "
17 "
Lanark
8 Lanark
12 "
1 N. Sherbrooke

LANARK E. AND CARLETON W.
—*W. C. Froats*
4 Beckwith
5 "
7 "
U 10 "
4 Goulburn
5 "
6 "
8 "
10 "
13 "
16 "
1 Huntley
3 "
6 Marlborough
1 Montague
2 "
4 "
6 "
15 "
1 Pakenham
2 "

Schools with Classes in Agriculture, Calendar Year 1917—Continued

6 Pakenham
7 "
1 Ramsay
6 & 7 "
8 "
11 "

LAMBTON—*Henry Conn*
8 Bosanquet
7 Plympton
1 Sarnia
3 "
6 Sombra
11 "
19 "
Wyoming

LAMBTON—*N. McDougall*
3 Brooke
5 "
17 "
10 Dawn
20 Enniskillen
22 "
23 "
1 Euphemia
3 "

LENNOX & ADDINGTON—*M. R. Reid*
6 Sheffield Con.

LEEDS—*W. C. Dowsley*
2 Elizabethtown
7 "
8 "
10 "
13 "
17 "
19 "
1 Kitley
4 & 7 Kitley & Elmsley
13 Kitley
16 "
1 & 3 Young & Elizabeth

LEEDS—*J. F. McGuire*
3 Bastard & Burgess S.
7 "
15 "
2 S. Crosby
3 "
5 "
16 "
5 S. Elmsley
1 Leeds & Lansdowne Ft.
4 " "
10 " "
13 " "
16 " "
17 " "
2 " " Rr.
4 " "
7 " "
8 " "

LINCOLN—*Geo. Carefoot*
6 Caistor
1 Clinton & 2 Louth
U 3 Clinton & 4 Louth
3 Gainsborough
4 "
1 Grantham
2 " & 8 Louth
3 "
6 "
12 S. Grimsby
1 Louth
Merritton
3 Louth, and 4 Clinton, Vineland

MIDDLESEX—*H. D. Johnson*
6 Adelaide
7 "
9 "
11 "
U 1 Caradoc & Lobo
2 "
4 "
8 "
12 "
15 "
5 Ekfrid
11 "
3 Lobo
6 "
7 "
10 "
1 Metcalfe
3 "
6 "
14 "
11 Mosa
3 E. Williams
6 "
10 W. Williams

MIDDLESEX—*P. J. Thompson*
4 & 12 Biddulph
5 Biddulph
6 "
1 Delaware
2 "
3 "
4 "
5 "
6 "
2 N. Dorchester
3 N. "
4 N. Dorchester
6 & 10 N. Dorchester
7 N. Dorchester
8 N. "
15 N. "
9 & 19 Westminster & Dorchester
1 & 1 London and N. Dorchester
1 London
3 & 10 "
4 "
5 London
8 "
12 "
13 "
14 "
16 "
17 "
19 "
20 "
23 "
Lucan
3 McGillivray
5 "
8 "
12 "
13 "
14 "
15 "
18 "
1 W. Nissouri
2 "
3 "
6 "
8 "
9 "
10 "
11 "
13 "
1 Westminster
3 "
4 " (Brick St.)
4 " (Pipe Line)
5 "
7 "
10 "
11 "
13 "
14 "
15 "
17 "
18 "
18 & 21 Westminster & N. Dorchester
19 & 5 Westminster & Delaware
23 Westminster

MIDDLESEX—*C. B. Edwards*
Tecumseh, London

MANITOULIN—*J. W. Hagan*
1 Robinson

MUSKOKA—*H. R. Scovell*
2 Macaulay
Port Carling

NORTHUMBERLAND & DURHAM—*A. Odell*
3 Cavan
10 Hamilton
12 "
7 Hope

NORTHUMBERLAND—*Robt. Boyes*
2 Brighton & 3 Cramahe
11 Seymour

Schools with Classes in Agriculture, Calendar Year 1917—Continued

NORFOLK—*H. Frank Cook*
11 Charlotteville
18 "
8 Houghton & 15 Bayham
10 "
4 Middleton
13 "
23 Walsingham

NIPISSING—*D. M. Christie*
1 Ferris
King Edward School (North Bay)
5 Widdifield

ONTARIO—*R. A. Hutchison*
4 E. Pickering
8 "
11 "
9 Reach
2 Whitby

ONTARIO NORTH—*T. R. Ferguson*
7 Brock
1 Mara
7 "
10 "
5 Scott
3 Thorah
4 Uxbridge
6 "

OXFORD—*J. M. Cole*
4 Blandford
8 Blandford & 4 Blenheim
1 Blenheim
2 " & 22 Burford
2 " & 3 Wilmot
6 Blenheim
7 "
9 "
10 "
11 "
13 "
14 "
18 "
24 "
25 "
Embro
1 E. Nissouri
2 " "
3 " "
7 " "
11 " "
2 E. Zorra
6 " "
8 " "
10 " "
11 " "
13 " "
15 " "
2 W. Zorra
3 " "
5 " "
8 " "

OXFORD—*R. A. Patterson*
2 N. Norwich
U 5 S. Norwich, N. Norwich & Dereham
2 W. Oxford
7 " "

PARRY SOUND—*J. L. Moore*
U 1 Chapman & Croft

PORT ARTHUR—*J. Ritchie*
Prospect Ave.
" " (Model)

PEEL—*W. J. Galbraith*
6 Albion
10 Caledon
13 "
14 "
15 "
1 Chinguacousy
4 "
10 "
16 "
22 "
4 Toronto Gore & Chinguacousy
8 Toronto
11 "
14 Toronto & 21 Chinguacousy
16 Toronto

PERTH—*Wm. Irwin*
1 N. Easthope
2 "
3 "
4 "
5 "
6 N. & S. Easthope
7 N. Easthope
8 N. Easthope & Ellice
4 Ellice
9 "
10 "
1 Elma
9 "
U 9 " & Mornington
5 Logan
U 6 "
8 "
10 "
11 "
1 Mornington
3 "
4 "
7 "
12 "
20 Mornington, Peel, Wellesley & Maryboro
5 Wallace

PERTH—*Jas. H. Smith*
3 Blanshard
5 "
6 "
7 "
9 Blanshard
10 "
U 11 "
14 " & Fullarton
3 Downie
4 "
5 "
6 "
7 "
8 "
9 "
10 "
2 S. Easthope
4 "
8 "
16 "
2 Fullarton
3 "
4 " & Downie
5 "
5 " Logan & Ellice
6 Fullarton
1 Hibbert
2 "
3 "
4 "
5 "
6 "
7 "
Stratford Schools:
Avon
Brunswick St.
Falstaff
Hamlet
Romeo
Shakespeare

PETERBOROUGH—*Richard Lees*
3 Dummer
13 Otonabee
16 "

PETERBOROUGH—*A. Mowat*
Queen Alexandra School.

PRESCOTT & RUSSELL—*John Nelson*
4 Cumberland
5 "
10 N. Plantagenet

PRINCE EDWARD—*B. E. Benson*
2 Ameliasburg
3 "
11 "
3 Athol
5 Hallowell
6 "
7 "
11 "
13 "
10 Hillier
Mary St.
6 N. Marysburg
5 Sophiasburgh
13 "
York St., Picton

Schools with Classes in Agriculture, Calendar Year, 1917—Continued

RENFREW—*I. D. Breuls*
6 Alice
7 Bromley
6 Ross
3 Wilberforce
8 "

RENFREW—*G. G. McNab*
10 Admaston
5 Horton
1 McNab
8 "
Victoria, Renfrew

SIMCOE—*Isaac Day*
8 Matchedash & Tay
4 Medonte
2 Oro & Vespra
5 " & Medonte
8 "
17 "
19 " & Vespra
2 S. Orillia
3 N. "
11 N. "
15 N. "

SIMCOE—*J. L. Gorvin*
7 Flos
12 Tiny

STORMONT—*Jas. Froats*
8 Cornwall

TIMISKAMING—*J. A. Bannister*
1 Evanturel
1 Hudson
1 & 4 Kearns
3 Savard
2 Tisdale

VICTORIA—*W. H. Stevens*
2 Carden
16 Marlposa
6 Ops

VICTORIA—*G. E. Broderick*
5 Emily
2 Smith
3 "
5 "
7 Verulam
9 "

WATERLOO—*L. Norman*
4 Waterloo
19 "
12 Wilmot
17 "

WATERLOO—*W. F. Sheppard*
6 Waterloo
4 Wellesley
7 Wellesley
8 "
11 " & Woolwich
6 Woolwich

WELLAND—*J. W. Marshall*
10 Bertie
6 Crowland
2 Devlin
10 Humberstone
U 2 Stamford & Thorold
4 "
6 "
9 "
U 1 Thorold & Stamford

WELLINGTON—*J. J. Craig*
4 Eramosa
9 "
2 Guelph
3 "
6½ & 7 Guelph
2 Nichol
3 Puslinch

GUELPH—*Wm. Tytler*
Torrance

WELLINGTON—*R. Galbraith*
1 Maryborough
2 Minto
4 Peel

WENTWORTH—*J. B. Robinson*
2 Ancaster
5 "
7 "
8 "
10 "
11 "
12 " & 20 Beverly
15 "
U 3 Barton
3 " (Ontiora)
5 " & Ancaster
6 " (U. James St. S.)
6 " (Rychman's)
7 "
3 Beverly
7 "
8 "
3 Binbrook
6 "
1 Burlington Beach
2 E. Flamboro
3 E. & W. Flamboro
5 W. Flamboro
6 " "
2 Glanford
1 Saltfleet
4 "
6 "
9 " (Lee School)
9 " (Pine Crest)
Wellington St. School (Hamilton)

YORK—*A. A. Jordan*
Markham
2 Markham
6 "
7 "
8 "
10 "
12 "
14 "
17 "
18 "
19 "
20 "
1 Scarboro
4 "
5 "
7 "
9 "
10 "
12 "
14 "
15 "
3 York
4 "
5 "
7 "
9 "
11 "
12 "
14 "
16 "
23 "
26 "
27 "
30 "

YORK—*C. W. Mulloy*
4 Georgina
3 E. Gwillimbury
5 " "
5 N. "
10 Whitchurch

YORK—*A. L. Campbell*
5 Etobicoke
10 "
12 "
13 "
14 "
5 Vaughan
8 "
17 "
18 "
19 York
22 "
28 "
31 "
32 "
33 "

YORK—*Walter Bryce (Toronto)*
Frankland School

Schools with Classes in Agriculture, Calendar Year, 1917—Continued

R. C. Separate Schools

Bennett, J. M.
4 Asphodel
4 Emily
Immaculate Conception
10 Loughboro'
3 Mara
8 Otonabee
5 Percy
3 Seymour
12 "
5 Sheffield
St. Mary's (Lindsay)
St. Peter's (Peterboro)
Sacred Heart (Peterboro)
St. Gregory's (Whitby)

Finn, J. P.
Eganville

Lee, W. J.
6 Arthur
2 Ashfield
1 Carrick
1 " & Culross
2 " & Culross
10 "
14 "
Collingwood (St. Mary's)
6 Ellice
Elora
5 Glenelg
7 "
Hanover
4 Hibbert
2 Hullett
4 Mornington
Owen Sound (St. Mary's)
1 Nichol
8 Peel
12 "
6 Stephen
7 Sydenham
St. James' (Huron)
St. Mary's (Barrie)
St. Patrick's (6 Proton)
13 Waterloo
4 Wellesley
10 W. Williams

Sullivan, J. F.
3 Biddulph
6 "
2 Maidstone
6 McGillivray
5 Raleigh
7 Sandwich S.

Owing to a change in the regulations requiring annual reports covering the school year instead of the calendar year as heretofore, special reports are being submitted as indicated below and the graded and ungraded schools are listed separately:—

Ungraded Schools Maintaining Classes in Agriculture for the School Year, September, 1917, to June, 1918

ALGOMA—*L. A. Green*
1 Lefroy
2 St. Joseph

CARLETON—*Willis Froats*
2 Huntley

DUFFERIN—*W. R. Liddy*
4 East Luther

DURHAM—*W. E. Tilley*
10 Darlington

ELGIN EAST—*J. C. Smith*
14 Malahide
4 Southwold

GREY—*H. Burgess*
7 Sullivan

HASTINGS—*J. E. Minns*
10 Huntingdon

HASTINGS—*H. J. Clarke*
4 Thurlow
9 Tyendinaga

HURON—*J. E. Tom*
U 3 E. Wawanosh & Morris
4 W. "
10 E. "

KENT—*W. H. G. Colles*
7 Camden
11 Howard
14 "

LAMBTON—*Henry Conn*
4 Moore

LEEDS—*J. F. McGuire*
11 Bastard
11 Leeds & Lans. Ft.

MIDDLESEX—*H. D. Johnson*
3 Caradoc
1 Lobo

MIDDLESEX—*P. J. Thompson*
16 N. Dorchester
13 McGillivray
7 W. Nissouri
5 Westminster
16 "

NORTHUMBERLAND—*R. Boyes*
1 & 5 Murray & Ameliasburg

ONTARIO—*R. A. Hutchinson*
2 Reach

PERTH—*Wm. Irwin*
7 Elma
U 3 Wallace, Elma & Grey
3 "
4 "

PETERBORO—*R. Lees*
11 Dummer

PRINCE EDWARD—*J. E. Benson*
14 Hallowell

RENFREW—*I. D. Breuls*
7 Bromley

SIMCOE—*Isaac Day*
12 Matchedash
3 Medonte
8 Orillia
9 Oro

TEMISKAMING—*J. A. Bannister*
1 Armstrong

WATERLOO—*L. Norman*
21 N. Dumfries

WELLAND—*J. W. Marshall*
13 Bertie
4 Wainfleet

WELLINGTON—*R. Galbraith*
4 Peel

WELLINGTON—*J. J. Craig*
1 Erin
4½ Guelph

YORK—*A. L. Campbell*
2 Vaughan & Markham

YORK—*C. W. Mulloy*
5 Georgina
2 E. Gwillimbury
19 King
1 King & Whitchurch
2 Whitchurch
12 "

Ungraded Schools with Classes in Agriculture, January-June, 1918

ALGOMA—*L. A. Green*
1 Aberdeen
2 Johnson
3 Korah
4 "
1 Laird
4 " & MacDonald
1 MacDonald
4 Plummer
1 Prince
3 St. Joseph
2 Tarentorus
3 "
2 Tarbutt & Laird
2 Thessalon

BRANT—*T. W. Standing*
14 Brantford
16 Burford
21 & 5 Burford & Oakland

BRUCE—*W. F. Bald*
15 Bruce
6 Carrick
13 "
2 Huron
13 "
3 Kincardine
8 "
9 "
1 Saugeen

CARLETON—*Thomas Jamieson*
6 Fitzroy
3 Gloucester
3 North Gower
7 Osgoode
11 "
1 Torbolton
5 "

DUFFERIN—*W. R. Liddy*
3 Amaranth
5 North Amaranth
12 Amaranth & Mona
20 "
4 E. Garafraxa
4 E. Luther
11 E. "
2 Melancthon
4 "
10 "
1 Mulmur
4 "

DUNDAS—*J. W. Forrester*
1 Matilda
2 "
4 "
5 "
6 "
7 "
8 "
9 "
9½ & 15 Matilda
10 Matilda
11 "
12 "
13 Matilda
14 "
15 "
16 "
17 "
18 "
19 "
23 "
1 Mountain
2 "
3 & 14½ Mountain
4 Mountain
5 "
7 "
9 "
10 "
11 "
12 "
13 "
14 "
15 & 17 "
16 "
17 "
18 "
22 & 23 "
1 Williamsburg
3 "
4 "
5 "
6 "
7 "
8 "
9 "
10 "
11 "
12 "
13 "
14 "
16 "
17 & 24 "
2 & 19 "
20 "
21 "
22 "
4 Winchester
5 "
6 "
7 "
8 "
9 "
10 "
11 "
12 "
14 "
15 "
16 "
18 "
20 "
21 "

DURHAM—*W. E. Tilley*
4 Clarke
17 "
3 Cavan
17 Darlington
10 Hamilton
12 "
7 Hope
12 "
5 Manvers
16 "

ELGIN—*J. C. Smith*
1 Bayham
3 "
4 "
6 & 7 " & Malahide
10 "
11 "
14 "
17 "
8 S. Dorchester
1 Malahide
2 "
3 "
5 "
6 "
8 "
9 "
11 & 16 Malahide & Yarmouth
16 Malahide
18 "
21 "
13 "
1 Southwold
3 "
6 "
8 "
9 "
11 "
12 "
14 "
15 "
19 "
21 "
6 Yarmouth
7 "
8 "
13 "
17 "
24 "
27 "

ELGIN—*J. A. Taylor*
1 Aldborough
2 "
3 "
7 "
8 "
9 "
10 "
11 "
12 "
14 "
15 "
1 Dunwich
6 "
U 6 " & 22 Southwold
7 "
9 "
14 "
14 S. Dunwich
Rodney

Ungraded Schools with Classes in Agriculture, January-June, 1918—Continued

ESSEX—*Dr. Maxwell*
2 Colchester N.
9 " N.
12 " S.
3 Gosfield S.
4 Malden
1 Mersea
1 Pelee Island
5 Tilbury West

FRONTENAC—*S. A. Truscott*
5 Portland

GLENGARRY—*J. W. Crewson*
1 Charlottenburg
4 "
6 "
7 "
12 "
13 "
15 "
17 "
18 "
1 Kenyon
4 "
9 "
16 "
5 Lancaster
6 "
7 "
8 "
17 "
1 Lochiel
5 "
12 "
13 "
14 "

GRENVILLE—*T. A. Craig*
5 & 19 Augusta & Edwardsburg
9 Augusta
11 "
13 "
17 "
1 Edwardsburg
8 "
10 "
13 "
14 "
27 "
1 S. Gower
3 "
3 Oxford
5 "
6 "
7 "
8 "
16 "
17 "

GREY—*H. H. Burgess*
2 Derby
2 " & Sydenham
4 Sydenham
5 "
10 Sydenham
12 "
16 "
4 Sullivan
5 "

GREY—*Robt. Wright*
13 Normanby
16 "

HALTON & WENTWORTH—*J. M. Denyes*
14 Beverly
15 "
1 Esquesing
2 "
3 "
5 "
6 "
U A.E. "
4 East Flamboro
3 Nassagaweya
5 "
6 "
3 Nelson
4 "
8 "
15 "
2 Trafalgar
3 "
6 "
7 "
8 "
9 "
18 "

HASTINGS—*H. J. Clarke*
2 Sidney (Avondale)
2 " (Bayside)
5 "
7 "
13 "
19 "
20 "
1 Thurlow
3 "
11 "
12 & 14 "
20 "
22 "
4 Tyendinaga
10 "
11 "
14 "
15 "
29 "

HASTINGS—*J. E. Minns*
12 Huntingdon
11 Marmora
13 Rawdon

HASTINGS—*J. Colling*
3 Dungannon
10 Herschel

HURON—*Dr. J. M. Field*
8 Grey
11 "
7 Howick
4 Morris & Turnberry

HURON—*J. Elgin Tom*
8 Ashfield
4 Goderich
2 Hay
3 "
6 "
14 "
1 Stanley
6 "
14 "
5 Usborne
U 3 Wawanosh E. & Morris
8 E. Wawanosh
11 " " & Hullett
11 " "
2 W. "
17 " "

KENT—*J. H. Smith*
2 Chatham
3 "
5 "
6 S "
6 N "
7 "
8 "
9 "
10 "
11 "
14 "
15 "
17 "
2 Dover
4 "
5 " E.
6 "
8 " E.
10 "
11 "
12 "
14 "
16 " & 23 Chatham
5 & 16 Sombra & Chatham
4 Raleigh
5 "
6 " & Dover
7 "
9 "
12 "
1 Romney
2 "
4 " & 12 Mersea
6 "
7 "
2 E. Tilbury E.
2. W. Tilbury E.
3 N. Tilbury E.
3 S. Tilbury E.
4 Tilbury E.
6 E. Tilbury E.
7 Tilbury E.

Ungraded Schools with Classes in Agriculture, January-June, 1918—Continued

KENT—*W. H. G. Colles*
3 Camden
U 3 " & Chatham
4 "
U 4 "
5 "
8 "
10 "
12 "
1 Chatham
2 " & Camden
4 "
18 "
1 Harwich
2 "
3 "
5½ "
6 "
7 "
8 "
9 "
9 & 14 Harwich & Howard
10 Harwich
11 "
12 "
13½ "
13 "
17 "
1 Howard
3 "
4 "
5 "
7 "
10 "
12 "
16 "
Moravian (Indian)
2 Orford
3 & 4 Orford
5 Orford
7 "
9 "
10 "
11 "
12 "
21 Harwich and 2 Raleigh
3 Raleigh
U 3 " & Harwich
U 4 " "
5 "
10 "
1 Zone
2 "
3 "
4 "
5 "

LAMBTON—*H. Conn*
8 Bosanquet
14 Moore & Sarnia
19 " and 15 Sombra
4 Plympton
7 "
1 Sarnia
3 "
6 Sombra
19 "

LAMBTON—*N. McDougall*
3 Brooke
17 "
6 Enniskillen
22 "
23 "
1 Euphemia
3 "

LANARK—*F. L. Michell*
1 Burgess & 2 Bathurst
5 Bathurst
6 & 6 Bathurst & Drummond
12 Bathurst
11 Drummond
16 "
17 "
9 Lanark

LANARK & CARLETON—*Willis C. Froats*
4 Beckwith
5 "
U 10 "
6 Goulburn
1 Montague
2 "
1 Ramsay
11 "
14 "
6 Pakenham
7 " & Darling
6 Marlborough

LEEDS—*W. C. Dowsley*
2 Elizabethtown
7 "
10 "
13 "
16 "
17 "
19 "
21 "
1, 1, 5 Kitley, Elmsley & Walford
4 & 7 Kitley & Elmsley
6 Kitley
13 "
16 "
U 17 & 10 Kitley & Yonge
18 Kitley
1 & 3 Yonge & Elizabethtown
2 Rr. Yonge
3 " "
10 Ft. "
12 Rr. " & Escott

LEEDS—*J. F. McGuire*
9 Bastard
11 North Crosby
3 South "
5 " "
16 " "
5 " Elmsley
6 " "
1 Leeds & Lansdowne
2 " " Rr.
4 " " "
6 " " "
7 Leeds
8 " & Lansdowne Rr.
10 " " Ft.
11 " " "
13 " " "
16 " " "
17 " " "

LINCOLN—*G. A. Carefoot*
3 Gainsboro
1 Grantham
3 "
6 "
12 S. Grimsby
1 Louth
1 & 2 Clinton & Louth
2 & 3 " "
3 & 4 " "
8 & 2 Louth & Grantham

MIDDLESEX—*H. D. Johnson*
2 Adelaide
3 "
7 "
9 "
11 "
U 1 Caradoc & Lobo
4 "
6 "
7 "
8 "
11 "
12 "
15 "
1 Ekfrid
3 "
6 Lobo
7 "
10 "
U 2 Ekfrid & Caradoc
1 Metcalfe
2 "
3 "
6 "
7 "
2 E. Williams
3 " "
5 " "
6 " "
10 W. "

MIDDLESEX—*P. J. Thompson*
5 Biddulph
6 "
1 Delaware
2 "
3 "
4 "
5 "
6 "
2 N. Dorchester
3 " "

Ungraded Schools with Classes in Agriculture, January-June, 1918—Continued

8 N. Dorchester
15 " "
1 London
3 & 10 London & Biddulph
4 London
5 "
8 "
13 "
14 "
16 "
17 "
19 "
20 "
21 "
22 "
23 "
1 & 1 London & N. Dorchester
3 McGillivray
5 "
6 "
12 "
14 "
15 "
18 " & Stephen
1 West Nissouri
2 " "
3 " "
6 " "
8 " "
9 " "
10 " "
11 " "
12 " "
13 " "
1 Westminster
3 "
4 "
7 "
10 "
11 "
13 "
15 "
17 "
18 "
23 "
6 & 10 " & Dorchester
8 & 21 " "
9 & 19 " "
19 & 6 " & Delaware

MANITOULIN DISTRICT—*J. W. Hagan*
1 Robinson

MUSKOKA DISTRICT—*H. R. Scovell*
2 Macaulay

NIPISSING DISTRICT—*D. M. Christie*
5 Widdifield
1 Ferris B

NORFOLK—*H. F. Cook*
18 Charlotteville
8 & 15 Houghton & Bayham
4 Middleton
13 "

NORTHUMBERLAND—*R. Boyes*
2 & 3 Brighton & Cramahe
11 Seymour

ONTARIO—*T. R. Ferguson*
7 Brock
1 Mara
7 "
10 "
5 Scott
3 Thorah
4 Uxbridge
6 "

ONTARIO—*R. A. Hutchison*
8 Pickering
11 "
17 "
9 Reach
2 Whitby

OXFORD—R. A. Paterson
1 & 2 E. Oxford & N. Norwich
5 S. Norwich
2 W. Oxford
7 " "

OXFORD—*J. M. Cole*
4 Blandford
4 " & 8 Blenheim
1 Blenheim
2 & 3 " & Wilmot
7 "
9 "
10 "
11 "
13 "
14 "
18 "
25 "
2 & 22 Burford & Blenheim
1 East Nissouri
2 " "
3 " "
11 " "
2 West Zorra
3 " "
5 " "
8 " "
2 East "
8 " "
10 " "
11 " "
13 " "
15 " "

PARRY SOUND DIST.—*J. L. Moore*
U 1 Magnetawan, Chapman & Croft

PEEL—*W. J. Galbraith*
6 Albion
10 Caledon
13 " & Erin
14 "

1 Chinguacousy
4 "
10 "
16 "
18 " & 4 Toronto Gore
22 Chinguacousy
8 Toronto
16 "

PETERBORO—*Richard Lees*
3 Dummer
13 Otonabee
16 "

PETERBORO—*G. E. Broderick*
2 Smith
3 "
5 "

PRESCOTT—*John Nelson*
10 & 3 N. & S. Plantagenet

PERTH—*Jas. H. Smith*
3 Blanshard
5 "
6 "
7 "
8 "
9 "
11 "
14 " & Fullarton
3 Downie
4 "
5 "
6 "
7 "
8 "
9 "
10 "
4 South Easthope
7 " "
8 " "
10 " "
U 5 Ellice & Logan
2 Fullarton
3 "
4 " & Downie
5 "
U 5 " & Ellice & Logan
U 6 "
1 Hibbert
2 "
3 "
4 "
5 "
6 "
7 "

PERTH—*Wm. Irwin*
4 Ellice
9 "
10 "
1 Elma
2 "
U 2 "
9 "
U 9 " & Mornington

Ungraded Schools with Classes in Agriculture, January-June, 1918—Continued

1 North Easthope
2 " "
3 " "
4 " "
5 " "
6 " "
7 " "
U 8 " " & Ellice
U 6 Logan & Elma
8 "
10 "
1 Mornington
3 "
4 "
7 "
12 "
20 " Wellesley, Peel & Maryboro
1 Wallace

PRINCE EDWARD—*J. E. Benson*
2 Ameliasburgh
3 "
7 "
11 "
3 Athol
5 Hallowell
6 "
11 "
13 "
10 Hillier
6 N. Marysburg
9 Sophiasburgh

RAINY RIVER DISTRICT—*Chas. McDowell*
2 Devlin

RENFREW—*G. G. McNab*
5 Admaston
1 Brougham
9 Gratton
5 Horton
9 " & 10 Admaston
1 McNab
8 "
9 "

RENFREW—*I. D. Breuls*
6 Alice
6 Ross
3 Wilberforce

RUSSELL—*J. Nelson*
4 Cumberland
5 "

SIMCOE—*J. L. Garvin*
7 Flos
12 Tiny

SIMCOE—*Isaac Day*
3 Medonte
2 Orillia
3 N. Orillia
2 Oro & Vespra

U 5 Oro & Medonte
8 "
9 "
19 " & 16 Vespra
8 Tay.

STORMONT—*James Froats*
8 Cornwall

THUNDER BAY DISTRICT—*J. Ritchie*
2 Scoble

TIMISKAMING—*J. A. Bannister*
1 Hudson
2 A. Tisdale

VICTORIA—*W. H. Stevens*
2 Carden

VICTORIA—*G. E. Broderick*
5 Emily
9 Verulam

WATERLOO—*F. W. Sheppard*
6 Waterloo
7 Wellesley
U 11 "
13 "
16 "
6 Woolwich

WATERLOO—*L. Norman*
4 Waterloo
19 "
12 Wilmot
17 "

WELLAND—*J. W. Marshall*
10 Bertie
13 "
6 Crowland
10 Humberstone
4 Stamford
9 "

WELLINGTON—*R. Galbraith*
2 Minto
2 Peel

WELLINGTON—*J. J. Craig*
9 Eramosa
1 Guelph
2 "
3 "
2 Nichol
5 Puslinch.

WENTWORTH—*J. B. Robinson*
2 Aucaster
5 "
7 "
8 "
11 "
15 "
12 " & 20 Beverly

3 Barton
5 " & Ancaster
6 "
3 Beverly
7 "
8 "
3 Binbrook
6 "
3 E. & W. Flamboro
5 W. Flamboro
6 " "
4 Glanford
1 Saltfleet
3 "
6 "
9 "

YORK—*A. L. Campbell*
5 Etobicoke
8 "
10 "
12 "
14 "
3 Vaughan
5 "
18 "
20 "
19 York
31 "
32 "
33 "

YORK—*C. W. Mulloy*
3 E. Gwillimbury.
5 " "
5 N. "
1 King & Whitchurch
10 Whitchurch

YORK—*A. A. Jordan*
2 Markham
4 " & 21 Vaughan
6 "
7 "
8 "
10 "
14 "
17 "
18 "
19 "
21 "
22 "
1 Scarboro
4 "
6 "
7 & 16 Scarboro
8 Scarboro
9 "
10 "
12 "
14 "
15 "
3 York
4 "
5 "
9 "

Ungraded Schools with Classes in Agriculture, January-June, 1918—Continued

11 York
12 "
14 "
16 "
23 "
26 E. York
27 York
30 "
34 "

R. C. Separate Schools

J. M. Bennett
5 Sheffield
2 Howe Island
10 Loughboro'
2 Wolfe Island
3 Seymour
3 Mara
8 Otonabee
Sacred Heart, Peterboro'
St. Peter's, Peterboro'
Mark St. "
4 Emily

J. F. Sullivan
3 & 4 Anderdon
2 Maidstone
7 Sandwich South
5 Raleigh
3 Biddulph
6 "
2 Neelon

W. J. Lee
1 Carrick
2 " & Culross
10 "
5 Glenelg
7 "
6 Proton
7 Sydenham
3 McKillop & Hibbert
6 West Williams
10 E. & W. Williams
4 Hibbert
4 Mornington
4 Wellesley
6 Arthur
Elora
Newmarket

Whole Year, R.C. Separate Schools (Sept., 1917, June, 1918)
8 Huntley
6 Carrick
12 Peel
3 Admaston
1 Howe Island
2 Loughboro'
St. Peter's School, Peterboro'

Graded Schools

During the past year a very considerable advance has been made with respect to the introduction, and the success, of Agriculture in the graded schools of the cities and towns. It is to be expected that the subject will be just as applicable to the schools of smaller towns and villages as it is in rural schools, but many of the schools in the larger cities, especially in the suburban districts, have carried on the work during the past year with good success. Practically all the large cities have now one or more schools conducting classes and are making provision for garden work. School gardens are not easy to secure in the city because of small school grounds, but to overcome this difficulty the Board of Education of the city of Ottawa purchased an acre of land close to three or four schools, paying $13,000.00 for the plot.

The work is in its infancy yet, but enough has been done to show its possibilities. Quoting from Inspector Edwards of London:—

I am especially well pleased with the work of Miss Hattie Chapman, who conducted the Lorne Avenue School garden. . . . I feel that there is a splendid opportunity for the work in our Public Schools.

Some of the schools kept an account of the expenditure and the receipts, showing in many cases very creditable returns. As has already been pointed out the financial feature is not the most important, but, at the same time, satisfactory financial returns are always inspiring. Quoting:—

We have in our school a Home Garden Club of fifty-three members. These pupils bought their own seeds, did their own work and kept an account during the summer. The results show that they grew $265.01 worth of produce, which is an average of $5.00 per pupil.

A. A. McIntyre, *Teacher*,
Ryerson School, Brantford.

The schools of the city of Stratford are particularly well organized in this direction. Quoting from the report of Inspector Smith:—

Six schools in the City of Stratford, ranging from a four-room school to two thirteen-room schools, took up the work. Each of these schools had a garden. The net profits from three of these gardens were:—

Hamlet School	$22 84
Brunswick School	15 87
Romeo School	15 84

List of Graded Public Schools with Classes in Agriculture, Sept. 1917 to June, 1918

CARLETON—*E. T. Slemon*
Bolton (Ottawa)
Borden "
Cambridge "
First Ave. (Ottawa)
George "
Hopewell "
Mutchmor "
Rideau "

KENT—*W. H. G. Colles*
Wallaceburg

PETERBOROUGH
Queen Alexandra

Graded Public Schools with Classes in Agriculture, Jan. to June, 1918

BRANT—*E. E. C. Kilmer*
Dufferin
Ryerson

BRUCE—*J. McCool*
Tara

CARLETON—
Normal Model (Ottawa)

DUNDAS—*J. W. Forrester*
Morrisburg
6 Mountain
22 "
Winchester

ELGIN—*J. C. Smith*
18 Bayham
18 Yarmouth

ESSEX—*D. A. Maxwell*
Essex

GLENGARRY—*J. W. Crewson*
Maxville

HURON—*J. E. Tom*
Hensall
6 Usborne

KENT—*W. H. G. Colles*
4 Harwich
2 Howard

LANARK—*F. L. Michell*
Lanark

LEEDS—*W. C. Dowsley*
Brockville

LENNOX AND ADDINGTON—*M. R. Reid*
6 Sheffield Consolidated

LINCOLN—*G. Carefoot*
Merritton

MIDDLESEX—*C. B. Edwards*
Byron Preventorium, London
Lorne Ave., London
Tecumseh, London
Riverview, London

MUSKOKA DISTRICT—*H. R. Scovell*
Port Carling

NIPISSING DISTRICT—*D. M. Christie*
McIntyre St., North Bay
Worthington St., "

OXFORD—*J. M. Cole*
Plattsville

PERTH—*J. H. Smith*
Brunswick St., Stratford
Hamlet School, "
Romeo School, "
Shakespeare Ward, "

PERTH—*Wm. Irwin*
Milverton

PRINCE EDWARD—*J. E. Benson*
Bloomfield
Picton

RENFREW—*G. G. McNab*
Renfrew Model
Victoria Ward
Renfrew

THUNDER BAY DISTRICT—*Jno. Ritchie*
Prospect Ave., Port Arthur

WELLAND—*J. W. Marshall*
Stamford, Niagara Falls South.

WELLINGTON—*J. J. Craig*
Drayton
MacDonald Consolidated (Guelph)

WELLINGTON—*W. Tytler*
Central, Guelph
Torrance, "

WENTWORTH—*J. B. Robinson*
Burlington Beach
Dundas, Hamilton
Lloyd George, "

YORK—*A. A. Jordan*
5 Scarboro
Markham

YORK—*W. Bryce*
Frankland, Toronto

YORK—*A. L. Campbell*
22 York

The Public and Separate Schools qualifying for grants commencing in 1903 are given in the following table:—

Year	No. of Schools	Year	No. of Schools	With School Gardens	With Home Gardens
1903	4	1911	33	.....	.....
1904	7	1912	101	.....	.....
1905	6	1913	159	.....	.....
1906	8	1914	264	208	56
1907	2	1915	407	222	185
1908	14	1916	585	324	261
1909	16	1917	989	466	523
1910	17	1918	1,020	588	432

Until 1914, no distinctions were made in the reports respecting Home Gardens and School Gardens.

Of the 989 schools teaching Agriculture in 1917, 375 were taught by teachers who held certificates in Agriculture, and 614 were taught by teachers with Second Class certificates.

Of the 1,020 schools teaching Agriculture in 1918, 348 were taught by teachers who held certificates in Agriculture, and 672 were taught by teachers with Second Class certificates.

Amount distributed in grants to Public and Separate Schools, calendar year 1917:—

Boards	$8,140.61
Teachers	22,270.66
January to June, 1918:—	
Boards	6,641.03
Teachers	16,237.54
To Inspectors, 1917-18	6,670.00
Amount Expended for Instruction:—	
Summer School, 1917	2,740.00
Summer School, 1918	4,874.25
Summer School Farm Mechanics, 1917	402.00
Summer School Farm Mechanics, 1918	402.00

The fund set apart to be used to encourage the teaching of Agriculture in Ontario is administered as set forth in the following clause of the agreement between the Federal Government and the Province:—

"To provide for and to encourage the teaching of Agriculture, Manual Training, as applied to work on the farm, and Domestic Science in High, Public, Separate and Continuation Schools and in Universities, to be available for grants, services, expenses and equipment, and travelling expenses of teachers, inspectors and others in attendance at Short Courses of other educational gatherings, and to be paid out on the recommendation of the Department of Education."

The Agricultural Instruction Act

Quoting from Sessional Paper 93, 1915:—

"On the 6th of June, 1913, assent was given to what is known as the Agricultural Instruction Act, which thereupon come into operation. This Act, as stated by the Minister of Agriculture, was intended to be a prompt and complete fulfilment of a promise made by the Prime Minister that he would provide for 'the granting of liberal assistance to the provinces for the purpose of supplementing and extending the work of Agricultural education and for the improvement of Agriculture.'"

The Minister, in his introduction of the Bill, stated:—

"Help given in an educational direction will mean not only better farming, but better farmers, and better and happier men and women. The particular form such assistance may take may vary with the special needs and conditions in each province. It will embrace the increasing of the efficiency and equipment of our agricultural colleges; the establishment of agricultural schools; of dairy and horticultural schools; of short courses in Agriculture; the initiation of agricultural teaching in the public schools; and work by travelling or located qualified instructors. It might well include the valuable educational work carried on by means of demonstration trains, training of teachers in nature study and the invaluable work of domestic science concerned with the women and girls of our communities, whose influence will always constitute one of the most potent forces in solving the problems we are considering."

The arrangement respecting this appropriation is here given:—

"The Act appropriated ten million dollars to be available during the ten years ending 31st March, 1923. Of this, $700,000 was available for the year 1913-14; $800,000 for 1914-15; $900,000 for 1915-16; $1,000,000 for 1916-17; $1,100,000 for 1917-18, and for each of the subsequent five years."

As these sums are divided on the basis of the population, Ontario will receive annually from 1917-23, $336,274.96. (Page 8, Agr. Instr. Act, 1915.)

I wish to draw attention to reports made voluntarily by some of the secretaries of boards of trustees. These statements show more than any general description the attitude of those rural schools that have made a beginning in Agriculture.

These statements are taken here and there from a large number coming from all parts of the Province:—

S.S. 11, Culross, Bruce Co., Gertrude Kelly.

This school has taken a good interest in school garden work and Agriculture and won the shield in three successive years in School Fair work, and the scholars are benefiting by such education.

WM. CRONIN, *Secretary,*
Teeswater.

S.S. No. 5, Torbolton, Carleton Co., Mrs. R. W. Milford.

The trustees spoke approvingly of the school garden and wish to have that branch of education continued.

WM. BROWN, *Secretary,*
Woodlawn.

S.S. No. 14, Tyendinaga, Hastings Co., Mabel B. Blakely.

We intend to go more fully into agricultural work another year and no doubt there will be some expenditure. The past year it was undertaken as an experiment which has proved satisfactory.

H. SWAN, *Secretary,*
Corbyville.

U.S.S. No. 14, Morris and Turnberry, Huron Co., Laura E. Holmes.

We have had a very successful year in our school, especially in Agriculture. We had a fine school garden, the pride of the section, and the children took a great interest in the work. We had a splendid school fair on the 13th of September. Our own school was the only school in it, as all the schools around would not go into it this year. We had a large crowd and everyone was surprised at such a grand exhibit. I think some of the other schools will join in with us next year. There are two grand things about a school fair: one is the education the children get from showing their exhibits, and the other is it helps the parents to take more interest in the children and school.

GEORGE MCDONALD, *Secretary,*
Bluevale.

S.S. No. 5, Raleigh, Kent Co., Susie Smyth.

The trustees think that the teaching of Agriculture and Horticulture is a good thing in the school and the children are interested. This year the teacher grew onions on the whole garden plot, but next year, 1918, we intend to have it divided into small plots, which creates much interest in the children and they take pride in caring for their own plot.

C. A. KEIL, *Secretary,*
R.R. 6, Chatham.

S.S. No. 3, Grantham, Lincoln Co., Beatrice M. MacKenzie.

The trustees are thoroughly satisfied that the teaching of Agriculture in our school is in capable hands. It is a practical subject for rural schools and we look for good results.

G. M. ARMSTRONG, *Secretary,*
R.R. 2, St. Catharines.

S.S. No. 16, Otonabee, Peterborough Co., Sara Hamilton.

In Rural Schools there is no subject more deserving of a position of importance in the Public School curriculum than Agriculture. The children by means of their progress club are getting a training that will be of great benefit to them in many ways in the future. We are sorry that the course of study is so crowded that more time cannot be taken on this work.

ALEX. HUSTON, *Secretary,*
R.R. 11, Peterborough.

S.S. No. 2, Ameliasburgh, Prince Edward Co., Eva E. Johnston.

Our school garden was a great success and a great many of the school section who were opposed to it on the start fell in with it and said they were glad we had started it, as it gave the children some employment and they showed a great interest in their work. The children were very carefully taught a great many useful things pertaining to Agriculture by our teacher Miss Johnston. We hope to be able to improve our work next year so we have had the ground worked up in good shape this fall.

ERNEST E. REDNER, *Secretary*,
Rednersville.

S.S. No. 19, Waterloo, Waterloo Co., A. L. Groh.

The ratepayers of the section are much interested in the school garden and are satisfied much good is being derived from the teaching of Agriculture to the pupils. The school board will have the school-yard ploughed and levelled next spring to secure a better appearance and will be kept locked on days when there is no school during the garden season next summer. They will also plant more shade trees.

C. I. GROH, *Secretary*,
Hespeler.

S.S. No. 5, Bathurst, Lanark Co., John Gamble.

We have much pleasure in informing you that Agriculture has been taught by the teacher of this school as far as his time was limited. Since Agriculture has been taught we see improvement in school grounds and home surroundings. The pupils take great pride in flower gardening and also in vegetable gardening. In composition it also helps. The pupils are asked to write essays on subjects that have been taught.

HARVEY MILLER, *Secretary*,
R.R. 4, Perth.

S.S. No. 3, Delaware, Middlesex Co., Norma B. Perry.

The pupils showed great interest in their gardens and kept them clean. The appearance of them rather excelled any gardens in the neighbourhood. A school fair was held, jointly with a neighbouring school, at which prizes in money were given. A Christmas concert was held in order to provide prize money for a school fair in 1918. The amount realized was $10.15.

C. R. HOWLETT, *Secretary*,
R.R. 2, Southwold.

S.S. No. 11, Pickering, Ontario Co., Nellie Spencer.

We think we had the very best garden in the county, if not province, this year. Our children are very much interested in the work and are doing well. We think the school garden at the school house is the proper place for it and a good education for the children along that line.

W. G. BARNES, *Secretary*,
R. R. 1, Locust Hill.

Torrance School, Guelph, Wellington Co., Jas. W. Benham.

The work undertaken at Torrance School by Mr. Benham has, I am sure, been productive of great good to all the school children, for those who did not take part were edified by what they came daily in contact with. The lawn flowers were the admiration of the section of the city. All gardening was well done and generally perfectly looked after.

WM. TYTLER, *Secretary*,
Guelph.

S.S. No. 10, Bertie, Welland Co., Ernest O. Bowen.

I thoroughly approve of Agriculture being taught in rural schools, and think that all teachers should be encouraged to teach it.

BERRY SHERK, *Secretary*,
Ridgeway.

S.S. No. 22, S. York, York Co., J. A. Short and Hazel Anguish.

In the opinion of the school trustees, the school garden forms an important department of instruction. Children and parents are alike interested and both are making use of the agricultural library.

FRED. HAWKE, *Secretary*.
Swansea.

Immaculate Conception Sep. School, Peterborough, Peterborough Co., Sr. Mary Adèle.

This is to certify that our school garden was a great success. The pupils took great interest in the work, from which they received much personal benefit, as well as increasing the supply of vegetables considerably in our city.

JAMES DRAIN, *Secretary*.
Peterborough.

S.S. No. 5, Percy, Northumberland Co., Nellie Doherty.

We find Agriculture a good study in our school as the school is in better condition and kept tidy. The pupils have a better interest in farm work and a strife is set up among the pupils to make reports at school.

P. J. Doherty, *Secretary.*
R.R. No. 1, Dartford.

Sep. Sch. No. 6, Biddulph, Middlesex Co., Katherine Crunican.

We were well pleased with our garden this year. It presented a very fine appearance and was much admired by passers by. The products grown all turned out well.

C. J. Crunican, *Secretary.*
Birr.

Sep. Sch. No. 2, Ashfield, Huron Co., Sr. M. Eugenia.

We are well pleased with the work in Agriculture. Since our school has begun this work, we notice a great improvement in the children's work on the farm. The work is done not only better, but the children seem to enjoy it.

Peter Austin, *Secretary.*
Kingsbridge.

The statements given in these quotations serve to show that the teaching of Agriculture is gradually becoming a part of the work of the rural school. And it is well that the subject be carried on as an optional one until the people realize something of its value. To force it into the schools at this stage would be a mistake. As stated by one of the teachers, it was first opposed, then tolerated, and now supported. This is the situation in not a few localities of the Province.

Greater Production

As was the case in 1917 the Schools of the Province, especially those maintaining classes in Agriculture, carried on work of considerable importance even from an economic point of view, though the educational aspect of such work is of much greater consequence than the economic. The arrangements concerning this work may be seen from the following two circulars:—

Circular to Inspectors and Teachers.

GREATER FOOD PRODUCTION FOR 1918

As is seen by the Departmental returns the increase in food supply due to the efforts put forth in connection with the Agricultural classes of the Public and High Schools of Ontario in 1917, amounted to at least $55,000 in money value. The demand for food will be still greater in 1918, and it is expected that teachers and pupils will put forth increased efforts this year in the same direction. Teachers, in particular, are urged to increase, when practicable, the area under crop in the school plots, and the home projects in all their branches.

Each teacher should consider herself a "food production officer," marshalling a regiment to fight against high prices and extreme scarcity. The 200,000 pupils now in schools where Agriculture is taught form a mighty host, which may be organized to win the war by increasing the food supply.

Last year the aim was to grow potatoes, beans, or other vegetables; and to raise poultry from selected eggs. The only modification proposed for 1918 is to increase the amount in every way possible. Each teacher is also asked to direct the pupils, as a business proposition, to calculate, from market prices available in the neighborhood, the total food value produced by the pupils and insert the result in the space provided in the Agricultural Report in order that information may be obtained to show the success attending this effort.

In 1916 the total amount expended in grants in connection with the Agricultural classes was $9,379.52, and the total amount of produce resulting directly from the work of the Agricultural classes was, as stated above, at least $55,000.

The Public and Separate School Inspectors are hereby urged to give every encouragement in the direction above proposed, not only as a war measure, but as a means of education.

For information respecting grants available for equipment, etc., those interested should write to the Department of Education. If a piece of rough sod is to be broken up for crop, write to the Inspector of Agricultural Classes for Agricultural Circular No. 2.

J. B. DANDENO,
Inspector of Elementary Agricultural Classes.

Toronto, January 29th, 1918.

To the Teachers of the Public and Separate Schools in Ontario.

GREATER PRODUCTION FOR 1918.

The Public or Separate School Inspector will distribute these leaflets to the teachers concerned.

By an arrangement with the Poultry Department of the O.A.C., Guelph, eggs for hatching can be supplied in a limited quantity for May delivery at $6.00 a hundred in 100-egg lots to pupils of schools in which classes in Agriculture are maintained. The eggs are from an improved Barred Rock bred-to-lay strain, and the introduction of this breed into the rural districts is likely to prove of lasting benefit to the whole country.

If the teachers are willing to take this matter up in connection with their classes, they should communicate with Professor Graham at the O.A.C., Guelph, and secure at one shipment the number of eggs required for their schools. Remit in advance to Professor W. R. Graham, Poultry Department, O.A.C., Guelph.

It is suggested that part of the cost (say one-half) be borne by the School Board and part by the pupils, thus placing the cost to the pupil at so reasonable a figure that the project will be within the reach of all. The part of the expense borne by the School Board may be charged to the Agricultural account (Regulations 7 and 8, pages 6-8, Circular 13, 1917) as the hatching of eggs and rearing of the brood is a legitimate and useful home project for a pupil of the third, fourth or fifth form. About 40,000 eggs were distributed under a similar arrangement in 1917.

J. B. DANDENO,
Inspector of Elementary Agricultural Classes.

Toronto, January 29th, 1918.

From reports received the schools took hold of the matter referred to in these leaflets with very creditable results.

School Fairs

The work of the School Fair may be estimated from the following quotation taken from a statement by Mr. Duncan, Supervisor of Agricultural Representatives. The origin of the School Fair and the progress made in 1915, 1916, and 1917 is given in my report of 1918:—

The School Fair is one of the best means of arousing interest in the work of the school. It creates in the boy and the girl a greater love for farm work and is a big factor in bringing the school work in closer touch with the home life of the pupil. During the past few years the movement has been given a very severe test. It has gotten a mighty strong hold of the community and is gaining in popularity.

School Fairs have registered a marked improvement over former years; particularly is this true of the quality of the exhibits. This may be attributed, first, to the pupils' experience in selecting produce for the fair, and, secondly, to an awakened interest on the part of teachers and parents. A special part of the programme on Fair Day has been set aside for the judges to give reasons for their placing. The desirable type in vegetables and the manner of preparing exhibits were pointed out and emphasized. This had a wonderful effect on the exhibits the following year, the quality being much superior and the arrangement more attractive.

During the past season 307 fairs were held in the Province of Ontario, and 2,868 schools were included in the movement, with a total of 71,086 children taking part. This is an average of 9 schools for each fair and 25 pupils for each school.

The Department of Agriculture purchased and distributed in small packages to the pupils the following quantities and varieties of seeds:

Oats	O.A.C. No. 72	82¾	bus.
	Banner	12	"
Barley	O.A.C. No. 21	57	"
Wheat	Marquis	42	"
Potatoes	Green Mountain	858	"
	Irish Cobbler	482	"
Field Peas	Early Britain	495	lbs.
	Arthur	450	"
	Prince Albert	30	"
Garden Peas	Thomas Laxton	756	"
Mangels	Yellow Leviathan	4,240	packages.
	Bruce's Giant	365	"
	Our Ideal	440	"
	Yellow Intermediate	560	"
	Mammoth Long Red	125	"
Turnips	Purple Top Swede	725	"
	Garton's Model	800	"
	Carter's Invicto	1,880	"
	Good Luck	430	"
	Garton's Keepwell	125	"
Beets	Detroit Dark Red	6,860	"
Carrots	Chantenay	8,120	"
Onions	Yellow Globe Denvers	6,910	"
Parsnips	Hollow Crown	3,920	"
Asters	Giant Comet	8,765	"
Sweet Peas	Giant Spencer	5,165	"
Phlox	Drummond	4,295	"

Special precautions were taken to purchase the best quality of oats, barley, wheat and potatoes which could be obtained. This tended towards greater uniformity and resulted in many farmers getting a start in seed of the highest quality of the best varieties. Agricultural Representatives have been shown whole fields of grain and potatoes during the past few years which had as their origin the small package of seed distributed to the pupils of the schools during the past few years. The value, therefore, of the School Fair work in the distribution of pure seed through the county must be recognized.

The number of eggs of a bred-to-lay strain of utility breeds of poultry distributed during the past three years may be summarized as follows:

	1916.	1917.	1918.
Barred Plymouth Rocks	7,357	8,940	9,670
Rhode Island Reds	406	293	140
White Wyandottes	295	50	130
Total	8,058	9,283	9,940

A certain number of the eggs distributed was obtained from the Poultry Department of the Agricultural College at Guelph, but the greatest quantity was secured from the Poultry Breeding Stations which have been established in each county. The birds in the Breeding Stations are of the bred-to-lay strain and are mated with cockerels secured through the Poultry Department at the O.A.C., Guelph. Each station is inspected and the flock culled in order to eliminate the poor birds. The eggs from these Breeding Stations are in great demand from farmers in the community and invariably command a much higher price than the eggs from the average neighbour flock.

The School Fair organizations are doing an immense amount of good in the rural schools and are assisting the teaching of Agriculture very materially. These organizations are under the charge of the Agricultural Representative, in co-

operation with inspectors and teachers. Russell and Perth are now the only counties without a representative.

For the information of teachers and inspectors the following list, correct to Jan. 1st, 1919, is here submitted:—

Agricultural Representatives of Ontario Department of Agriculture

County.	*Representative.*	*Address.*
Algoma	Ray Atkin	Sault Ste. Marie
Brant	R. Schuyler	Paris
Bruce	N. C. McKay	Walkerton
Carleton	W. D. Jackson	Carp
Dufferin	H. A. Dorrance	Orangeville
Dundas	F. A. Wiggins	Morrisburg
Durham	G. A. Williams	Port Hope
Elgin	C. W. Buchanan	Dutton
Essex	J. W. Noble	Essex
Frontenac	A. W. Sirett	Kingston
Glengarry	D. E. MacRae	Alexandria
Grenville	W. M. Croskery	Kemptville
Grey	H. C. Duff	Markdale
Haldimand	Geo. L. Woltz	Cayuga
Halton	W. F. Strong	Burlington
Hastings	A. D. McIntosh	Stirling
Huron	S. B. Stothers	Clinton
Kenora	D. Frejd	Kenora
Kent	J. L. Dougherty	Chatham
Lambton	W. P. Macdonald	Petrolia
Lanark	Fred. Forsyth	Perth
Leeds	W. H. Smith	Athens
Lennox and Addington	G. B. Curran	Napanee
Lincoln	D. Elliott	St. Catharines
Manitoulin	I. F. Metcalfe	Gore Bay
Middlesex	R. A. Finn	London, Box 663
Muskoka and Parry Sound	F. C. Paterson	Huntsville
Norfolk	E. F. Neff	Simcoe
Northumberland	H. Sirett	Brighton
Ontario	R. M. Tipper	Whitby
Oxford	G. R. Green	Woodstock
Peel	J. W. Stark	Brampton
Peterborough	F. C. McRae	Norwood
Prince Edward	A. P. MacVannel	Picton
Rainy River	R. E. Cumming	Emo
Renfrew	M. H. Winter	Renfrew
Simcoe	Allan Hutchinson	Collingwood
Sudbury	D. J. Robicheau	Sudbury
Thunder Bay—		
Port Arthur Section	L. M. Davis	Port Arthur
Fort William Section	G. W. Collins	Fort William
Timiskaming	J. M. McIntosh	New Liskeard
Victoria	A. A. Knight	Lindsay
Waterloo	J. S. Knapp	Galt
Welland	E. K. Hampson	Welland
Wellington	R. H. Clemens	Arthur
Wentworth	W. G. Marritt	18 Market St., Hamilton
York	J. C. Steckley	Newmarket

The work carried on by means of the School Fairs links up very well with that of the teaching of Agriculture and of the School Garden. In some cases these fairs are held in graded schools of cities. I attended one of such fairs held

in the Frankland School of the City of Toronto, where an exceedingly large number of entries were made, as follows:—

Product.	*Number of Entries.*
Beets	179
Potatoes	23
Cabbage	76
Carrots	130
Onions	16
Cucumbers	14
Salsify	8
Tomatoes	103

The School Fair has always been popular and is becoming more and more a factor in education. The following statements represent the situation:—

Ryerson Public School, Brantford.

We have in our school a home garden club of fifty-three members. These pupils bought their own seeds, did their own work and kept an accurate account during the summer. The results show that they grew $265.01 worth of produce, which is an average of $5.00 per pupil.

We also have a School Fair. The children have their own Fair Board, do all the business in a business way, handle all money and prizes—in fact, do it all under my supervision. A number of boy and girl judges are selected to act with the regular judges and learn why an exhibit deserves first prize, etc. Fair Day is one of the biggest days for the pupils in the school year.

A. A. McIntyre, *Prin. Ryerson P.S.*

Cumberland Public School.

This year the school exhibited for the first time at the County Fair. Intense interest was shown by parents in this. The mothers having expressed a desire that they might see the exhibit before it was taken to Russell, the teachers had it displayed in the teachers' room at the school, where they invited the parents to visit them the day previous to the fair. When all had assembled and some time had been spent in conversation, the teachers, with the aid of two girls from the senior fifth, served refreshments. This social hour was thoroughly enjoyed by both parents and teachers and served as an opportunity for both to become better acquainted.

The exhibit consisted of vegetables from school garden, some illustrating experimental work, canning (done by the girls of the Girls' Progress Club), green and ripe tomatoes, carrots, beets and corn, and pupils' collections of weeds and insects.

Alice L. Dunning, *Teacher.*

High Schools

Schools commencing the work for the first time were visited twice during the year, and the other schools at least once. The following list shows in a general way, not only the Secondary Schools visited officially, but also other institutions concerned:—

Schools Visited in 1918

Spring Term, 1918:

Brockville	Exeter	Port Hope	Whitby
Cobourg	London	Smith's Falls	Winchester
Essex	Oakville	Uxbridge	

Fall Term, 1918:

Arthur	Leamington	Port Hope	Whitby
Cobourg	London	Port Perry	Wingham
Ingersoll	Oakville	St. Thomas	

Public Schools with a Fifth Class taking Part I of the Lower School Course of the High Schools: Gorrie.

Normal Schools: Toronto, Peterborough, Ottawa. (The other Normal Schools were visited in the Fall of 1917.)

School Fairs: Cooksville, Pickering, Frankland School (Toronto).

Teachers' Institutes: Three Inspectorates of Grey (Owen Sound), Hastings (Belleville).

Boards of Education at: St. Thomas, Collegiate Institute; Ingersoll, Collegiate Institute; Guelph (B. of E.); Fergus (H.S.B.); Dundas (B. of E.); Feuelon Falls.

Schools which had not yet introduced Agriculture, Secondary Schools: St. Thomas C.I., Ingersoll C.I., Guelph C.I., Brampton. Public Schools: Guelph, Ottawa Normal Model, Winchester.

Mr. W. J. Black, Commissioner under the Agricultural Instruction Act, suggested that he, in co-operation with the Inspector of Agricultural Classes, visit a number of schools in which Agriculture was taught so that the Commissioner might gain a knowledge at first hand of the actual working out of the scheme in Ontario. Acting upon this suggestion an itinerary was arranged and the following schools visited: High Schools—Whitby, Oakville, Smith's Falls, Brockville. Normal School—Toronto. Public Schools: *York Co.*—Agincourt, 10 Scarboro, Birch Cliff, Russell Hill Rd.; *Halton Co.*—Palermo, Omah; *Ontario Co.*—Whitevale, Green River; *Leeds Co.*—Eastward, Brockville, Elizabeth, Flat Rock; *Lanark Co.*—1 Burgess, 5 Bathurst; *Dundas Co.*—Winchester Springs, 5 Matilda.

As has already been pointed out in former reports, the chief problem confronting us is the lack of legally qualified teachers of Agriculture. It is quite probable that there will be a considerable improvement in that direction now that the war is over. Another difficulty lies in the fact that the subject is optional and can only be used as a bonus on examinations. The curriculum is fairly well filled with subjects that are obligatory, and the other subjects that are optional are required or may be used on matriculation or other examinations. Agriculture has, therefore, a severe handicap. Schools have still the passing of examinations as one of the chief aims, and unless a subject is on the examination list it will always be regarded as only secondary. However, it may be said to the credit of many Principals of Secondary Schools, that if they were free to make certain modifications in the programme they would be glad to introduce Agriculture as one of the regular studies of High Schools, especially of those in rural or semi-rural districts.

Pressure is brought to bear upon Principals of schools by pupils and parents, and when this pressure is emphasized by the demands of universities, colleges, and other institutions of College standing, one is led to sympathize with the Principal in his efforts to organize his school with satisfaction to all.

As was the case with the Public and Separate Schools, the Secondary Schools in the interest of greater production by means of both Home Projects and School Gardens, accomplished something reasonably worth while. The following statement from the Ridgeway Continuation School shows the results obtained by one class in that school, both girls and boys:—

"Brief Summary of Agricultural Projects of First and Second Forms, Ridgeway Continuation School.

Main Aim—Greater Production.

Name	Area	Estimated cost	Estimated returns	Estimated net profit
		$ c.	$ c.	$ c.
Brown, Jessie	1,500 sq. ft.	12 90	24 00	11 10
Ellsworth, Marion	400 " "	2 20	21 00	18 80
Hershey, Wilfrid	.....	5 80	53 00	47 20
Mann, Marion	Home garden	.....	.....	.....
Millington, V.	4,000 sq. ft.	3 50	15 68	12 18
Misiner, Orlin	1,200 " "	2 40	18 00	15 60
Snyder, George	5,200 " "	1 20	39 50	38 30
Ott, Harold	½ acre onions, beets and beans.	4 00	69 00	65 00

First Form—Project Work—Summary

Austin, Maurice	300 sq. ft.	55	4 50	3 95
Barnhard, Clinton	.....	own seed	27 20	27 20
Benner, Arthur	Helped father, etc., in farm work as per attached report			
Ellsworth, Ruth	1,500 sq. ft.	90 seed 14 hrs. at 20c, 2 80	21 80	18 10
English, Wilfrid	1,500 sq. ft.	4 25labour 4 75seed	17 25	9 25
Hibbard, Ruth	Helped in home garden			
Learn, Mary	.....	85 seed	30 90	30 05
Lown, Ross	Had good plot but report not in yet			
Moyer, Melvin	.....	2 73	20 40	17 67
Sherk, Mildred	9 sq. rods	9 00	30 00	21 00
Tavano, Dominick	550 sq. ft.	4 20	19 85	15 65
Wintemute, Gerda	Helped a neighbour care for her garden			
Young, Wilfrid	.....	20 38	58 72	38 34
				389 39

In addition to the individual home projects the students also took part in the school garden. A half acre of this we put into potatoes, but the results were not good, only about thirty bushels being harvested. For next season we are trying to get a more favourable plot for our garden."

A. M. Woodley, *Principal.*

Each High School works out its own special problems, some giving attention to one branch and others emphasizing other branches. Some of the schools entered experimentally into the problem of seed production of certain biennial vegetables, such as turnips, cabbage and mangels. The following quotations refer to similar experimental work:—

The experimental plots were devoted chiefly to growing seeds, as follows:

"A cabbage plant bore two and a half ounces of seed. Four sugar mangels gave two pounds of seed. Three beets produced one pound of seed. One carrot produced two ounces of seed. Parsnip seed was easily grown. We have one pound. In every case we found that the seed germinated very well. We found that onion sets could be successfully grown. We believe that every school could grow enough seed to supply the pupils' homes." (W. A. Porter, Niagara Falls South.)

"In the first place we secured the garden plot at the greenhouse, just outside the town limits, up the street leading to the railway station, for a potato plot. The greenhouse has not been in operation for a couple of years, so the garden was also idle. The preceding year one of our school trustees had put potatoes on it, he being the agent in charge, but he got nothing off it, and he told me I'd get nothing off it because the soil was too rich for potatoes. However, I had an idea that the soil was not in fault, but that it needed cultivation to keep the weeds from choking out the crop, so, in spite of his

warning, we proceeded to plant our potatoes, and, although we had anything but a favorable season, it being so continuously wet, yet from this one-seventh of an acre of ground we took on 1st of October, 21⅓ bags of marketable potatoes and only about ¾ of a bag that were unmarketable. Thus we demonstrated that the rich soil did not prevent the raising of a crop of potatoes." (I. E. Dobbie, Principal of Continuation School, New Liskeard, Ont.)

The progress of the work in the Secondary Schools is indicated by the following table, which shows where the work was introduced and how long continued. The word "Yes" means that the work was carried on successfully through the term, and the word "No" indicates that the work was temporarily dropped. The reason assigned in each case for dropping the subject was because of the impossibility of securing a legally qualified teacher to teach Agriculture:—

Schools	1915		1916		1917		1918	
	Jan.–June	Sept.–Dec.	Jan.–June	Sept.–Dec.	Jan.–June	Sept.–Dec.	Jan.–June	Sept.–Dec.
Collegiate Institutes—								
Brockville	.....	.....	.....	yes	yes	yes	yes	yes
Clinton	yes	yes	yes	yes	yes	no	no	no
Ingersoll	.....	.....	.....	.....	.....	.....	.....	yes
London	.....	.....	.....	.....	.....	yes	yes	yes
Picton	yes	yes	yes	yes	yes	yes	yes	yes
Renfrew	.....	.....	.....	yes	yes	yes	yes	yes
Smith's Falls	.....	yes	yes	yes	yes	yes	yes	yes
St. Thomas	.....	.....	.....	.....	.....	.....	.....	yes
Vankleek Hill	yes	yes	yes	yes	yes	no	no	yes
High Schools—								
Arthur	yes	yes	yes	yes	yes	yes	yes	yes
Athens	.....	.....	.....	.....	.....	yes	yes	yes
Bowmanville	yes	yes	yes	no	no	no	no	no
Cobourg	.....	.....	.....	.....	.....	yes	yes	yes
Essex	.....	.....	.....	yes	yes	yes	yes	no
Georgetown	.....	.....	.....	yes	yes	no	no	no
Hagersville	.....	yes	yes	yes	yes	no	no	no
Kincardine	.....	.....	.....	yes	yes	yes	yes	yes
Leamington	.....	.....	.....	.....	.....	.....	.....	yes
Niagara Falls, S	yes	yes	yes	yes	yes	yes	yes	yes
*Oakville	yes	yes	yes	yes	yes	yes	yes	yes
Port Hope	.....	.....	.....	.....	.....	yes	yes	yes
*Port Perry	.....	.....	.....	.....	.....	.....	.....	yes
Uxbridge	.....	.....	.....	.....	.....	yes	yes	no
*Whitby	.....	.....	.....	yes	yes	yes	yes	yes
Williamstown	.....	.....	.....	.....	.....	yes	yes	no
Winchester	yes	yes	yes	yes	yes	yes	yes	yes
Wingham	.....	.....	.....	.....	.....	yes	yes	yes
Weston	.....	.....	.....	.....	.....	.....	.....	yes
Continuation Schools—								
Cannington	.....	yes	yes	yes	yes	no	no	no
*Drayton	yes	yes	yes	yes	yes	yes	yes	yes
Exeter	yes	yes	yes	yes	yes	no	no	yes
New Liskeard	.....	yes	yes	yes	yes	yes	yes	yes
Ridgeway	yes	yes	yes	yes	yes	yes	yes	yes
Public Schools with Form V—								
Gorrie (Huron Co.)	.....	.....	.....	.....	.....	.....	.....	yes
Florence (Lambton Co.)	.....	.....	.....	.....	.....	.....	.....	yes

*Separate Departments of Agriculture.

The chief difficulties in introducing and in maintaining classes in Agriculture in the Secondary Schools is the lack of legally qualified teachers.

The number of High Schools qualifying for grants since 1915 are here given:—

——	No. Schools	With Plots	No Plots
1915			
January–June	11	.....	11
September–December	15	.....	15
1916			
January–June	15	1	14
September–December	20	1	19
1917			
January–June	20	7	13
September–December	21	7	14
1918			
January–June	21	16	5
September–December	26	18	8

The Training of Teachers for High Schools

As has been pointed out the chief difficulty in the way of introducing Agriculture into the Secondary Schools of Ontario is the lack of qualified teachers. Courses are provided at the Ontario Agricultural College covering two consecutive summers of five weeks each. These courses were introduced in 1913 and the following teachers so far have qualified:—

1914

John A. Bell.
George A. Campbell.
Geo. A. Clark.
J. B. Dandeno, B.A., Queen's, A.M. Ph.D., Harv.
James L. Mitchener, B.A., McMaster.
Wm. J. Morrison, B.A., Toronto.
Alex. R. McRitchie, B.A., Toronto.
Alex. Pearson, B.A., Toronto.
Edmund Pugsley, B.A., Victoria.
Fred Sine, M.A., B.Sc., Queen's.
Arthur M. Woodley.
Wm. B. Wyndham, B.A., Toronto.

1915

Wm. Bowden.
*Wm. G. Butson.
Edward J. Corkill, B.A., Queen's.
Robert W. Fleming.
**Chas. S. Gulston.
John P. Hume, B.A., Queen's.
John A. Macdonald.
Geo. O. McMillan, M.A., B.Pæd., Queen's.
Muriel A. Shook.
Geo. B. Spark, B.A., Toronto.

1916

John G. Adams, B.A., Queen's.
Edwin T. Bell, B.A., McMaster.
Geo. W. Bunton, B.A., Queen's.
Geo. E. Copeland, M.A., Queen's.
Isabella E. Dobbie.
Wm. Donaldson, B.A., Toronto.
Clarence Elliott.
F. V. Elliott, B.A., Western.
Hugh H. Graham, B.A., McMaster.
Hugh J. Haviland, B.A., Toronto.
Gideon A. Miller, M.A., Queen's.
W. A. Porter.
Walter E. Shales, M.A., Queen's.
Daniel E. Smith, B.A., Queen's.
Christopher Summers.

*Killed at Vimy Ridge.

**Enlisted in the Naval Service.

1917

J. A. Anderson, B.A., Queen's.
Norman Davies, B.A., McMaster.
W. M. Erwin, B.A., Queen's.
Isabel A. Foster.
Helen E. Foster.
W. D. Hay, B.A., Queen's.
G. S. Johnson, B.A., McMaster.
A. J. Madill, B.A., McMaster.
G. E. Pentland, M.A., Queen's.
H. E. Ricker, M.A., Queen's.
P. M. Shorey, B.A., B.Sc., Queen's.
J. A. Short.
F. P. Smith, M.A., Queen's.
T. C. Smith, B.A., Queen's.
D. A. Welsh, B.A., Toronto.

1918

F. J. Barlow, B.A., Toronto.
Jas. E. Burchell, B.A., Queen's.
J. F. Calvert, B.A., Toronto.
R. D. P. Davidson, B.A., Queen's.
J. W. Emery, B.A., D.Pæd., Tor.
Thomas Firth, M.A., Toronto.
J. W. Forrester, M.A., Queen's, D.Pæd., Toronto.
John H. Short.
David Whyte, B.A., Toronto.

PART III FOR SPECIALISTS, 1918

J. A. Anderson, B.A., Queen's.
G. E. Copeland, M.A., Queen's.
Norman Davies, B.A., McMaster.
W. M. Erwin, B.A., Queen's.
G. S. Johnson, B.A., McMaster.
A. R. McRitchie, B.A., Toronto.
Alex. Pearson, B.A., Toronto.
F. P. Smith, M.A., Queen's.
J. G. Adams, B.A., Queen's.

FARM MECHANICS, 1917

G. A. Clark.
J. B. Dandeno, B.A., Queen's, A.M., Ph.D., Harv.
Norman Davies, B.A., McMaster.
Isabel E. Dobbie.
F. V. Elliott, B.A., Western.
W. D. Hay, B.A., Queen's.
G. S. Johnson, B.A., McMaster.
A. J. Madill, B.A., McMaster.
P. M. Shorey, B.A., B.Sc., Queen's.
W. B. Wyndham, B.A., Toronto.

FARM MECHANICS, 1918

J. G. Adams, B.A., Queen's.
J. A. Anderson, B.A., Queen's.
G. E. Copeland, M.A., Queen's.
R. D. P. Davidson, B.A., Queen's.
Ishbel A. Foster.
Helen E. Foster.
A. R. McRitchie, B.A., Toronto.
J. L. Mitchener, B.A., McMaster.
Alex. Pearson, B.A., Toronto.

SUMMARY, INCLUDING FARM MECHANICS

Queen's	34
Toronto	17
McMaster	12
Western	2
Victoria	1
With University Degrees	66
Without Degrees	23

The names and addresses of Public and Separate School Inspectors who successfully completed Part I and II respectively are given below:—

Inspectors

PART I. INTERMEDIATE, 1918

Benson, J. E.	Picton
Boyes, R.	Campbellford
Campbell, A. L.	Weston
Clarke, H. J.	Belleville
Colles, Rev. W. H. G.	Chatham
Conn, Henry	Sarnia
Cook, H. F.	Simcoe
Froats, Jas.	Cornwall
Galbraith, W. J.	Brampton
Galbraith, Robt.	Mount Forest
Garvin, J. L.	Barrie
Green, L. A.	Sault Ste. Marie
Hagan, J. W.	Gore Bay
Huff, S.	Meaford
Irwin, Wm.	Stratford
Jordan, A. A.	Toronto
Longman, E.	Barrie
McDougall, N.	Petrolia

Marshall, J. W. .....Welland
Mills, G. K. .....Toronto
Moore, G. L. .....Parry Sound
Mulloy, C. W. .....Aurora
Nelson, J. .....Vankleek Hill
Reid, M. R. .....Sharbot Lake
Scovell, H. R. .....Bracebridge
Sheppard, F. W. .....Kitchener
Slemon, E. T. .....Ottawa
Smith, J. H. .....Chatham
Smith, Jas. H. .....Stratford
Standing, T. W. .....Brantford
Stevens, W. H. .....Lindsay
Taylor, J. A. .....St. Thomas
Truscott, S. A. .....Kingston

PART II. INTERMEDIATE, 1918

Bald, W. F. .....Port Elgin
Bennett, J. M. .....Toronto
Breuls, I. D. .....Pembroke
Bryce, Walter .....Toronto
Burgess, H. H. .....Owen Sound
Carefoot, Geo. A. .....St. Catharines
Christie, D. M. .....Sudbury
Cole, J. M. .....Woodstock
Colling, Jas. .....Bancroft
Craig T. A. .....Kemptville
Craig, J. J. .....Fergus
Crewson, J. W. .....Alexandria
Day, Isaac .....Orillia
Dowsley, W. C. .....Brockville
Ferguson, T. R. .....Uxbridge
Field, John M. .....Goderich
Finn, J. P. .....North Bay
Froats, Willis .....Carleton Place
Jamieson, Thos. .....Ottawa
Johnson, H. D. .....Strathroy
Jones, Jas. E. .....Ottawa
Kilmer, E. E. C. .....Brantford
Lee, W. J. .....Toronto
Lees, Richard .....Peterborough
Liddy, W. R. .....Orangeville
Maxwell, D. A. .....Windsor
Michell, F. L. .....Perth
Minns, J. E. .....Tweed
Moshier, D. D. .....Toronto
McCool, Jno. .....Walkerton
McGuire, Jas. F. .....Westport
McNab, G. G. .....Renfrew
Norman, Lambert .....Galt
Paterson, R. A. .....Ingersoll
Power, J. F. .....Toronto
Ritchie, Jno. .....Port Arthur
Robinson, Jno. B. .....Hamilton
Smith, J. C. .....St. Thomas
Sullivan, J. F. .....London
Thompson, P. J. .....London
Tom, J. Elgin .....Goderich
White, R. O. .....Minden
Wright, Robt. .....Hanover

Research for Specialist's Certificate in Agriculture

As stated previously, nine men completed Part III for specialist standing in Agriculture in 1918, and have undertaken problems in research as follows:—

G. S. Johnson, Principal of Whitby High School.
Problem: Rural Credits as Operating in Ontario County.

Norman Davies, Science Master, Renfrew Collegiate Institute.
Problem: The Lime Factor in Soils.

W. M. Erwin, Science Master, Brantford Collegiate Institute.
Problem: The Water Solubility in Various Arsenates with Reference to Their Use as Fungicides.

J. A. Anderson, Science Master, Wingham High School.
Problem: A Study of the Actual Weight and Number of Eggs Produced by Different Strains of Bred-to-Lay Hens.

F. P. Smith, Science Master, Brockville Collegiate Institute.
Problem: The Effects of Illuminating Gas on House Plants, with a view to Obtain Resisting Varieties.

G. E. Copeland, Science Master, Port Hope High School.
Problem: Causes of Variation in the Percentage of Fat in Milk.

A. R. McRitchie, Principal of Arthur High School.
Problem: The Determination of the Available Constituents of Basic Slag as a Fertilizer.

A. Pearson, Principal, Weston High School.
Problem: Hot-house Management.

J. G. Adams, Substitute Teacher, Faculty of Education.
Problem: The Effects of Climatic or Soil Conditions on the Quality of Flour.

Slides for Demonstration

In order to assist the schools in securing illustrative material for class work, sets of lantern slides are now provided by the Department of Education. These slides are sent to such Secondary Schools as have lantern facilities, and also to the Normal Schools. The schools have been grouped into three circuits, as indicated in the following lists given below. Nine sets of slides in all have been sent out. After these sets will have made the rounds of the schools they will be returned to the Department of Education.

It is to be hoped that motion picture machines may be secured with a view towards having them sent from school to school in the form of a circuit, the films to be supplied by the Department of Agriculture.

Regarding the use of the slides referred to, I give the following quotation:—

"I have had two boxes of slides. I had to keep them longer than the week as I received the first box when the school was closed and the second one the day school opened. They are splendid. The pupils took great interest in them. Those on poultry and poultry houses were splendid to show the pupils what would otherwise have been difficult to show them, as it is impossible to show them the different breeds and houses. I like the slides very much. They are a great help in the work." (H. Wing, Teacher of Agriculture, St. Thomas Collegiate Institute.)

Instructions regarding High School Circuits and the use of Slides for Agricultural Classes

Three circuits have been arranged and boxes of slides will be sent from the Department as follows:—

One box will be sent out on the same date to each of the three schools first named in each circuit, collect. Each of these schools will make use of the slides in such a way as best suits the requirements of the school, keeping the parcel for a week. Each will then ship this box *down* the circuit to the next school named. When the boxes will have reached the school last named and have been used by that school, they will be forwarded one by one (when used) to the school named at the first of the list, and so on until each school will have used each of the three boxes. The circuit is then completed and the boxes will then be shipped, without delay, one by one, to the Department of Education.

The boxes must all be shipped collect, then each school will have paid one express carriage for each box.

Each shipper will give name of shipper and school from which box is shipped, and will give dates of receipt and of shipment on the paper kept within the box, so that each teacher concerned will have knowledge of the whole situation and will lend a hand to make it a success.

As soon as the slides will have been received at the Department of Education, at the close of the first round, those from Circuit No. 1 will be sent to the first school on Circuit No. 2, then forwarded to the second school and so on down the circuit. Those received from Circuit No. 2 will similarly be sent to No. 3 and those from No. 3 to No. 1. When the boxes will have made the second round they will be returned to the Department.

At the close of the second round the boxes will all be returned to the Department of Education. Immediately these slides will be sent out for the third round, that received from No. 1 circuit will be sent to No. 2, and those from No. 2 sent to No. 3, and those from No. 3 will be sent to No. 1. When the boxes have gone through the third time all slides will be sent to the Department of Education. Each school will then have used nine boxes.

Circuit No. 1

School	Name of Teacher
Leamington H.S.	G. A. Campbell
St. Thomas C.I.	Henry Wing
London C.I.	J. F. Calvert
Ingersoll C.I.	W. E. Shales
London Normal	G. W. Hofferd
Kincardine H.S.	P. M. Shorey
Wingham H.S.	J. A. Anderson
Stratford Normal	J. N. Emery
Arthur H.S.	A. R. McRitchie

Circuit No. 2

Whitby H.S.	G. S. Johnson
Port Hope H.S.	G. E. Copeland
Cobourg C.I.	R. P. D. Davidson
Picton C.I.	H. H. Graham
Peterborough Normal	A. J. Madill
Port Perry H.S.	Thos. Follick
Oakville H.S.	W. B. Wyndham
Dundas H.S.	W. H. Tuke
Hamilton Normal	G. A. McMillan
Niagara Falls S.	W. A. Porter

Circuit No. 3

New Liskeard	I. E. Dobbie
North Bay Normal	H. E. Ricker
Renfrew C.I.	Norman Davies
Ottawa Normal	G. A. Miller
Vankleek Hill C.I.	G. E. Pentland
Athens H.S.	J. A. Burchill
Brockville C.I.	F. P. Smith
Smith's Falls C.I.	G. W. Bunton
Winchester H.S.	F. J. Barlow

Amendments have been made to the Regulations recently whereby a teacher may qualify for Specialist standing in both Science and Agriculture. Here is the Regulation:—

"A Specialist's Certificate in both Agriculture and Science may also be obtained on the following qualifications: A First Class Grade A or a High School Assistant's Certificate, granted on the Science option under the Amended Regulations of 1917, with the degree of B.S.A. after the prescribed course at the Ontario Agricultural College." (Amendments to Regulation of 1918, p. 66.)

NOTE.—The Courses for the degree of B.Sc. (Agr.), provided for in Circular 47 A, will not be given hereafter except in the case of those students who have already begun the Courses therefor.

It is expected that a number of capable men who have taken the B.S.A. degree may be secured to enter the High Schools and Collegiate Institutes. The degree of B.Sc. (Agr.) as indicated will no longer be given, chiefly because very few seemed to be attracted to this course, only one man qualified since the establishment of the course in 1912.

It has also been made possible to obtain Specialist standing in Agriculture as follows, taken from the Amended Regulations of 1918, page 66:—

THE SPECIALIST'S CERTIFICATE IN AGRICULTURE

The provisions of Circular 47 (A) of September, 1912, have been amended, and, as announced in the Summer School Syllabus for 1918, the following are the courses for the Specialist's certificate in Agriculture obtainable by the holders of Permanent or Interim Specialists' certificates in Science.

(1) The two Summer School Courses for the Intermediate Certificate in Agriculture (including a course in Farm Mechanics).

(2) A third Summer School Course in the following:

Applied Science:

(*a*) Botany: Plant diseases; chemistry: soil fertility, stock foods; bacteriology: plant diseases, dairy bacteriology: common diseases of farm animals (may be taken with (*c*) below).

Field Husbandry:

(*b*) Grain judging, including field crops, seed selection; Horticulture; hybridization: fruit judging; plant breeding (may be taken with (*a*) above): methods of producing seeds of vegetables.

Animal Husbandry:

(*c*) Stock judging: feeds and feeding (may be taken with Chemistry in (*a*) above): poultry judging, poultry economics: dairying: butter and cheese judging, separator work and testing.

(3) A problem in research, covering at least the first year following that in which the third Summer School Course was taken.

The grants provided for maintaining classes in Agriculture in Secondary Schools and the requirements for earning these grants are set forth in the following regulations:—

Agriculture and Horticulture

LOWER AND MIDDLE SCHOOL

11. On the report of the Director that the Regulations have been satisfactorily complied with, the Department will pay the following grants:

(1) An annual grant, not exceeding $100.00 in each case, will be paid to the Board for carrying on the Lower and the Middle School Courses respectively.

(2) (*a*) An annual grant of $120 will be paid to the holder of a High School professional certificate and the degree of B.Sc. (Agr.), or to the holder of a Specialist's certificate in Agriculture, for carrying on the Lower and Middle School courses respectively, for the calendar year, or of $60 for each course carried on to the end of June, or of $40 for the remainder of the year.

(*b*) An annual grant of $80.00 will be paid to the science teacher who holds an Intermediate certificate, or to a District Agricultural Representative or an Assistant District Agricultural Representative of the standing of the Third year in the Ontario Agricultural College, for the Lower and Middle School courses respectively carried on for the calendar year, or of $40.00 for each course carried on to the end of June, and of $30.00 for the remainder of the year. For carrying on the course in more schools than one, the Agricultural Representative will be paid two-thirds of the regular grant for each additional school.

(3) For conducting experimental and demonstration plots on the school grounds in connection with the class-room and laboratory instruction in the Lower and Middle School courses respectively, a grant of $25.00 additional will be paid to the teacher or Agricultural or Assistant Agricultural Representative in addition to the salary paid by the School Board, and a grant not exceeding $25.00 for each course, to the Board.

(4) The grants will be apportioned on the reports for the calendar year.

(5) The accounts for the work shall be kept separate from the general school expenditure, and a financial statement shall be submitted on a special form by the

Secretary to the Minister at the end of December. The totals of the receipts and expenditures shall, however, also be included in the General Financial Statement of the Board to the Department of Education. No grants can be paid to a school until these reports are received.

(6) The legislative and any municipal grants to the School Boards for Agricultural Education are made solely for the purpose of promoting the cause of Agriculture and Horticulture in the community through the work of the school, and may be expended as follows:—

(*a*) The grant of $100.00 for the general work:

For agricultural or horticultural books or charts, for subscriptions to journals on farming, dairying, gardening, beekeeping, poultry keeping, etc.; for the purchase of Babcock milk testers, spraying equipment, pruning and grafting appliances, school bee-hives, accessories for handling bees, incubator and models for poultry equipment, apparatus for soil, bacteriological or chemical experiments; for providing vegetable and flower seed or seed grain required by pupils in their home projects; for printing instruction sheets, announcements regarding plans for work, competitions, etc.; for meeting the expenses of the teachers or committee acting with the teacher in the supervision of the work, and for such other purposes as may be approved by the Minister.

(*b*) The special grant of $25.00 for the support of the special experimental and demonstration plots at or in connection with the schools:

For preparing the ground by manuring, cultivating or draining; for the rental or leasing of additional land adjacent to the school grounds; for the purchase of equipment such as tools, lines, labels, hot bed, cold frame or such other things as may be needed in carrying on the experiments; for the purchase of fertilizers or planting material, such as seeds, roots, bulbs, seedling trees or shrubs, or cuttings to be used in experiments or demonstrations; for the expense of caring for the plots during the summer holidays; and for such other purposes as may be approved by the Minister.

A certificate of having completed the First Course for an Intermediate or for an Elementary certificate, with an undertaking by the holder thereof to complete the second course in the following year will entitle the holder to qualify for the grants specified.

These grants will be paid also to the holder of a High School or First Class certificate and the degree of B.S.A.

Agricultural Departments in High Schools

The details respecting the maintenance of a Department of Agriculture in a Secondary School are given in a bulletin entitled "Recommendations and Regulations for the Establishment, Organization, and Management of Agricultural and Household Science Departments," issued in 1915 by the Department of Education. Up to the present four schools have each established a Department of Agriculture: Whitby High School, Oakville High School, Port Perry High School, and Drayton Continuation School.

In a measure, these schools are extending the meaning and usefulness of the High School, inasmuch as they are providing something that appeals directly to the welfare of the locality in which they are situated. To a certain extent this is a new departure in High School work, and it remains to be seen how this works out.

Farm Mechanics as a division of the work in Agriculture has been introduced into three of these schools: Whitby, Oakville, and Port Perry. This feature of Agricultural education is already proving of great value as an educational feature.

These schools are already extending the work of the High School by providing a short winter course suitable to the needs of the community.

Moreover, one of these schools (Whitby) makes use of a motion picture machine in giving demonstrations of certain Agricultural operations, not only in classes in this school, but also in surrounding public schools for evening meetings. A storage battery makes it possible to provide light sufficient to operate the machine even in the most out-of-the-way places. This feature of High School work links up the High School with the rural school to the advantage of both institutions. Motion pictures are rapidly becoming important factors in education, and the Department of Agriculture has already a considerable library of films which may be made use of by the schools.

It is expected that schools maintaining Departments of Agriculture may become the real Agricultural High Schools of the future.

The regulations respecting grants to such schools are here given:—

DISTRIBUTION OF GOVERNMENT GRANTS

19. Continuation or High Schools or Collegiate Institutes shall be entitled to grants from the Department of Education for their Agricultural or Household Science department or for both departments in accordance with the following scheme, provided they have complied with the Regulations in regard to accommodations, equipment, courses, staffs, and organization (1) of said department or departments, and (2) of the class of school to which said department or departments belong.

I. Agricultural Department

Fixed Grants

(1) An annual fixed grant of $150 for each year of the course in Agriculture.

Equipment

(2) (*a*) Fifty per cent. of the value of the equipment for Farm Mechanics for the first year and twenty-five per cent. of the value of said equipment for each of the two years thereafter—maximum total grant $750.

(*b*) Fifty per cent. of the value of the rest of the Agricultural equipment for the first year and twenty-five per cent. of the value of said equipment for each of two years thereafter. Maximum total grants for the three years $500.

Accommodations

(3) An annual grant on special accommodations, as follows:—

Agricultural Class-room

——	Room	Water Supply	Tables	Black-boards	Lighting	Heating	Ventilation	Store Room
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
Grade I..	15 00	6 00	9 00	2 00	6 00	6 00	6 00	10 00
" II..	11 25	4 50	5 75	1 50	4 50	4 50	4 50	7 50
" III..	7 50	3 00	4 50	1 00	3 00	3 00	3 00	5 00
" IV	3 75	1 50	2 25	50	1 50	1 50	1 50	2 50

Experimental Plots

Grade I, $50; grade II, $37.50; grade III, $25.00; grade IV, $12.50.

Workshop

——	Room	Water Supply	Black-board	Lighting	Heating	Ventilation	Stock room
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
Grade I..	15 00	6 00	2 00	6 00	6 00	6 00	10 00
" II..	11 25	4 50	1 50	4 50	4 50	4 50	7 50
" III..	7 50	3 00	1 00	3 00	3 00	3 00	5 00
" IV..	3 75	1 50	50	1 50	1 50	1 50	2 50

Salaries

(4) Annual grants as follows:

(*a*) (i) Fifty per cent. of the expenditure for the salaries of the staff of the Agricultural department when the whole course is taken up; maximum, $750.

(ii) When Farm Mechanics is not taken up, the maximum grant shall be $600.

(*b*) Fifty per cent. of each of the following payments, on the recommendation of the Advisory Agricultural Committee:

(i) To the teacher of Agriculture for supervising the Home projects as prescribed by Regulation, at the rate of $5.00 a day of five and a half hours, including the time spent in travelling. For each year's class, the grant shall be: for supervision during the school year, maximum $100; for supervision during the Summer holidays, maximum $50.

(ii) To the teacher of Agriculture for travelling expenses in connection with the supervision of each year's class, maximum $100.

(iii) To the special lecturer or lecturers in the Agricultural subjects, maximum grant $50.

II. Household Science Department

Fixed Grants

(1) A fixed annual grant of $150 for each year of the course.

Equipment

(2) Fifty per cent. of the value of the equipment for the Household Science subjects for the first year and twenty-five per cent. of the value of said equipment for each of the two years thereafter. Maximum total grant for the three years, $500.

Accommodations

(3) An annual grant on the special accommodations, as follows:—

—	Kitchen	Tables	Water Supply	Black-boards	Light-ing	Heat-ing	Ventila-tion	Storeroom, pantry, cupboard	Dining-room	Laun-dry
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
Grade I	15 00	9 00	6 00	2 00	6 00	6 00	6 00	10 00	15 00	15 00
" II	11 25	5 75	4 50	1 50	4 50	4 50	4 50	7 50	11 25	11 25
" III	7 50	4 50	3 00	1 00	3 00	3 00	3 00	5 00	7 50	7 50
" IV	3 75	2 25	1 50	50	1 50	1 50	1 50	2 50	3 75	3 75

Salaries

(4) An annual grant of fifty per cent. of the expenditure for the salaries of the staff of the Household Science department if the whole course is taken up. Maximum total grant $600.

(5) If the supervision of the Home projects of the Agricultural subjects of the Household Science department is under the charge of the teacher of such department, the grants for such supervision shall be on the same bases as those provided for in Regulation 19 (4) (*b*) (i) and (ii), above.

NOTE.—To suit the re-organization of the work in Agriculture formerly done under the Ministers of Education and Agriculture, Section 33 (2) of the High Schools Act and Section 8 (4) of the Continuation Schools Act have been rescinded. By amendments made to the High and Continuation Schools Acts, County Councils may make grants in aid of the Agricultural and Household Science departments. As the grants offered in this Circular are provided by the Dominion Government, County Councils are not required to provide equivalent grants.

Agriculture in Normal Schools

The teaching of Agriculture in the Normal Schools is rapidly becoming established as one of the regular features of Normal School work. Owing to the large classes in these schools, and also to the fact that when the schools themselves were established very little thought, if any, was given towards making provision for the teaching of Agriculture. The difficulties arising out of this lack of special provision for the teaching of this subject are being met by making use of neighbouring farms, stock barns, and such other institutions as may be found in the city, for demonstrating certain farm operations.

In nearly all the Normal Schools larger grounds have been, or soon will be, secured for demonstrations in vegetable gardening and also for experimental work in connection with Field Husbandry. In the illustration here given of a portion of the garden of the Hamilton Normal School, intercropping and other garden problems are being worked out.

Laboratories are also being equipped for certain phases of Agricultural work. A considerable portion of such work may be done in the ordinary Science laboratory if provided with suitable simple equipment. The illustration showing a class at work on soil may serve to show how such a laboratory may be used for work in Agriculture. Such work is, of course, closely related to other subjects—notably physics, chemistry and geology; and practice in this character of work often gives vitality and interest to the ordinary High School physics and chemistry.

When the High Schools of the Province provide a course of study in both the Lower and Middle Schools, obligatory for those who expect to attend the Normal Schools and become teachers, less elementary work will then be needed, and consequently more time can be devoted to methods of management. In the meantime a good deal can be done under the conditions in which we are now placed, as may be seen from the following statement by Mr. McMillan, teacher of Agriculture in the Hamilton Normal School:

"During the session of 1917-18 two hundred and thirty teachers-in-training received the regular Normal School Course in Agriculture and Horticulture at Hamilton. As very few of the teachers-in-training have received a school course in Agriculture before entering the Normal School it has been necessary to treat each topic first in an academic way, and discuss it from the standpoint of method. Throughout the session the course in Agriculture and Horticulture was closely correlated with the work in Nature Study and Elementary Science.

"The expenditure of $276.00 for permanent Agricultural equipment facilitated the work immensely. Students were enabled to experiment individually. Each teacher-in-training made the Babcock test for butter fat in milk. By the use of lactometers they detected watering and skimming of milk, and by the aid of the O.A.C. dairy bulletins calculated approximately the extent of each. Through the kindness of Mr. Forster, Manager of the Pure Milk Co. of Hamilton, we were permitted to spend two Saturday forenoons in a dairy plant. Nearly all the students availed themselves of the opportunity and saw the milk delivered from the farms, examined, weighed, clarified, pasteurized, cooled, bottled and placed in cold storage ready for delivery. Other interesting features were the pasteurization of cream, the process of washing bottles, the artificial cold storage plant, ice-cream manufactured, and the bacteriological department.

"For candling eggs each desk in the laboratory was equipped with two egg candles. Each consisted of an oak stand carrying an electric light globe above and covered with cardboard case supplied by the Poultry Branch, Department of Agriculture, Ottawa. These were used by the students in candling fresh and stale eggs and in testing eggs from our incubator for fertility. One coal-oil lamp was equipped and used similarly to demonstrate a method for rural schools. The lantern slides and class work on varieties of poultry were supplemented by a visit after school to the Hamilton Poultry Show, where a large variety of birds were seen. By special arrangement approximately 130 students attended in a body under the children's admission fee.

"In the study of farm animals, use was made of the lantern slides supplied by the International Harvester Company and of others, the property of the school. One Saturday forenoon was spent at the Asylum barns, where valuable assistance was given by Mr. Grey, farm superintendent. Here we saw a root-cellar, a silo and many features of a good dairy barn. After the good points of a dairy cow had been demonstrated, an animal was taken into the yard, and the students judged it by the use of score cards. The characteristics of light and heavy draught horses were also pointed out.

"The weed seeds collected on excursions in the autumn were examined, drawn and described by the students in class.

"Considerable equipment for soil studies was secured during the year and the laboratory course on soils was applied in garden work in the spring term.

"Early in March, cabbages, tomatoes, celery, etc., were started in flats indoors. These were later transferred to hot-beds prepared and cared for largely by the students. The students also prepared cold frames into which many seedlings were transplanted when crowded. In this way were produced all the young plants required by both the students and Strathcona School pupils in our school gardens.

"In our school garden the system of intercropping was followed to a great extent and has proved very successful.

"In the garden work the students gain experience in certain operations in their own plots. Each then assists one or more public school pupils with the same work in the children's garden. In this way the teachers-in-training get experience that may help them later in their own schools.

"To carry out this scheme successfully each of the five classes of teachers-in-training should be given charge of a public school class for the garden work of the spring term. This would demand a large amount of garden space. Last session one hundred and sixty public school pupils received individual garden plots under the direction of the Normal students. The total garden area approximated forty-eight square rods. There remained perhaps one-sixth of an acre for students' plots and for demonstration work. The addition of another city lot to our garden this year will assist materially. But if satisfactory work is to be done in horticulture and floriculture permanent provision should be made for fruit trees, small fruits and a greenhouse."

The last statement given by Mr. McMillan touches a very important feature of the accommodation—a greenhouse. Every Normal School should be provided with a greenhouse, not so much for ornamental plants as for a sort of laboratory in which Agricultural and Horticultural problems can be worked out.

The accommodation and equipment for teaching Agriculture are not yet all that could be desired. The following list shows, to a certain extent, the value of the equipment:—

Equipment for Agriculture in Normal Schools

Normal School	Equipment	Books	Other material
	$ c.	$ c.	$ c.
Hamilton	276 00	10 05	117 92
London	101 50	18 00	168 50
North Bay	182 94	28 71	.....
Ottawa	.....	36 63	.....
Peterborough	66 11	.....	22 08
Stratford	259 90	30 00	50 00
Toronto	344 83	.....	44 85

The rural schools affiliated with the Normal Schools are given in the following list. It is much to be regretted that the officers in charge of these schools have not been able to secure teachers with certificates in Agriculture.

Teachers of Agriculture in the different Normal Schools

Hamilton .....G. O. McMillan, M.A., B.Pæd., Queen's
London .....G. W. Hofferd, B.A., Queen's
North Bay .....H. E. Ricker, M.A., Queen's
Ottawa .....G. A. Miller, M.A., Queen's
Peterborough ..... A. J. Madill, B.A., McMaster
Stratford .....J. W. Emery, B.A., D.Pæd., Toronto
Toronto .....David Whyte, B.A., Toronto

All of these men except Mr. Hofferd hold Intermediate Certificates in Agriculture. Mr. Hofferd holds Part I of this certificate, and will complete the course by taking Part II in 1919.

The schools affiliated with the Normal Schools are given in the following list. These schools have all made a good start and it is hoped that efforts for advancement of such schools may be fostered and encouraged in every possible way. It is also hoped that some of these schools may, in the near future, become centres of consolidation.

Schools Affiliated							Teacher of Affiliated School				
Normal School	Section No.	Township	Date of affiliation	Miles from Normal	Secretary	P.O. Address	Name of Teacher	Cert.	Certificate in Agricul.	Salary from Board	Salary from Dept.
Hamilton	5	Barton ..... Burlington Beach	Sept.,1916	2	Lees Beckett.....	Mt. Top, Hamilton	J. B. Russell....	I	No Cert.	$650 com.	$200
		"	"	6	Burlington B. Commission, room 800, Bank of Hamilton	Hamilton	Margt. Cattanach	I	Pt. I, 1918	$700	200
	U3	W. Flamboro & Aneaster	Sept.,1918	6½	W. H. Brooking.....	R.R. 3, Dundas.....	Deane Whitson..	I	" I, 1918	700	200
Stratford	3	Downie	1909	5½	D. M. Ballantyne.....	R.R. 3, Stratford.....	Hazel Yates	II	Pt. I. 1917	600	200
	5	"	1916	4	S. Richardson	R.R. 1, St. Paul's.....	E. Bradshaw....	II	Cert.|	600	200
	9	"	1916	7½	Wm. Muir	R.R. 5, St. Mary's.....	M. McCully.....	II	Cert.	700	200
Peterborough.	3	Smith	Sept.,1916	3	Percy Edmison.....	R.R. 2, Peterborough ..	Kate McLean...	II	Cert.	675	200
	5	"	"	6	G. D. Mann	Bridgenorth	M. I. Klinck	II	Cert.	750	200
	6	Otonabee ...	"	3	Alex. Huston.....	R.R. 6, Peterborough ..	Phyllis Borland.	II	No "	700	200
London	7	Westminster	Sept.,1916	4	R. T. Baty.....	R.R. 1, Wilton Grove..	C. E. Johnson ...	II	No Cert.	750	200
	13	"	" 1918	12	Jas. McMillan	Glanworth	Jean Hutton	II	Pt. I, 1918	725	200
	22	London	" 1918	4	R. Dengate.....	Ealing.....	Helen Paterson.	II	Cert.	650	200
North Bay...	5	Widdifield ..	Sept.,1916	9	Wm. Downie.....	Feronia	Ethel Luckens..	II	Pt. I, 1916	600	200
	1B	Ferris	"	2	James Pasmore	North Bay.....	Vina Fennell....	II	Cert.	600	200
Ottawa	14	Nepean	Sept.,1916	3	Thomas Mulligan.....	R.R. 1, Hintonburg....	Margaret Innes.	II	No Cert.	650	200
	3	Glouecster..	"	4	John Beamish	Billing's Bridge.....	E. Lovina Rose..	II	Pt. I, 1917	650	200
	3	Nepean	"	7	W. F. Bell.....	R.R. 1, Britannia Bay..	Marjorie Loney..	II	No Cert.	650	200
Toronto.....	U1	King and Whitehurch	Sept.,1918	9	Fred. Legge..	Oak Ridges	Mary Treneh ...	II	No Cert.	600	200
	4	York	"	6	Jno. McKenzie	Willowdale	M. A. Beatty....	II	Pt. I.	700	200
	U2	Vaughan and Markham	Sept.,1917	12	R. Thompson.....	Langstaff	Frances Brown.	II	Pt I, 1918	650	200

SUMMER COURSES, 1918

Ontario Agricultural College

Whatever may be the tendency regarding increase or decrease of attendance in schools and colleges during the war, there is no uncertainty about the progress in the Summer Courses for teachers given at the Ontario Agricultural College. In 1918, all told, there were 368 teachers and 79 inspectors. The following schedule shows the attendance since 1911:—

Attendance at the Ontario Agricultural College Summer Courses in Agriculture, 1911-1918

Year	Elementary				Intermediate					Inspectors	Farm Mechanics	Total
	I		II		I		II		III	I II	—	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	—	—	
1911	8	75	1	16	....	.....	....	.....	....	.....	.....	100
1912	16	65	2	23	....	.....	....	.....	....	.....	.....	106
1913	14	64	5	36	23	4	....	.....	....	.....	.....	146
1914	8	55	5	27	13	4	14	.....	....	.....	.....	126
1915	15	39	5	18	17	1	9	1	....	.....	.....	105
1916	11	99	9	31	15	3	14	1	....	.....	.....	183
1917	15	138	7	81	9	1	13	2	....	.....	10	276
1918	6	187	7	119	20	11	9	.....	9	79	9	456

The foregoing table indicates a marked tendency since 1915 towards an appreciation of the Courses provided by the staff of the Ontario Agricultural College, under the direction of the Department of Education. The table shows the number in actual attendance at the College, but omits, of course, to give the number who made application for admission. More than three hundred applied for admission to Part I of the Elementary Course in 1918, but the College was unable to accommodate only two hundred in this class, consequently, over a hundred candidates were disappointed in their endeavour to secure further education along agricultural lines. It is hoped that in 1919 arrangements may be made to accommodate, at other centres than Guelph, if necessary, all who wish to take these courses. In some respects the people of Ontario are only commencing to understand the importance of this great movement to increase the efficiency of the Ontario educational system.

As shown in the table above, 79 inspectors attended the courses in 1918 and took the work provided for the classes which take the courses leading to an Intermediate certificate. These men should be equipped not only to direct the work of the teachers, but also to take an active part in this propaganda of rural improvement. As is the case with the teachers, the inspectors will complete the work leading to an Intermediate certificate in 1919.

A considerable number of those who enter Part I of the course leading to an elementary certificate, for some reason or other do not complete the course by taking Part II. The following shows the percentage of shrinkage:—

Number taking Part I		Number completing Part II the following year		Decrease per cent.
1911	83	1912	24	71
1912	81	1913	41	50
1913	76	1914	32	58
1914	63	1915	23	64
1915	54	1916	40	26
1916	100	1917	88	12
1917	158	1918	126	20

These figures show a very marked improvement in 1916 and 1917, with respect to the dropping out referred to.

An interesting feature of the Summer Course in 1918 was the presence of 28 "Sisters," teachers from R. C. Separate Schools. Though handicapped somewhat in the garden work by their method of dress, they accomplished manfully all the regular work, in class, laboratory and garden, with praiseworthy success.

On account of the large number in attendance, dormitory or boarding accommodation could not be provided for the men, consequently, the courses for all concerned lost much of their charm and something of their efficiency. Going back and forth down town consumed much time, and in most cases this prevented attendance upon evening meetings.

As was the case last year, the swimming tank provided an opportunity to learn to swim, and also a means of enjoyment to those who had previously learned.

A pageant put on by a number of teachers under the direction of the Instructor in games was very much appreciated and enjoyed by all. A collection on this occasion produced $43.00, which was sent to the Fresh Air Fund of the "Daily Star."

Though the work was strenuous and the weather hot, the teachers and inspectors enjoyed the work, and no doubt will carry away much of experience that may be useful in their regular spheres of labour.

In addition to the regular class work six special lectures were given on Consolidated Schools by Mr. Lee L. Driver, of Winchester, Indiana. Consolidation of schools in Ontario is now, and is likely to be for some time, a live question in rural communities in Ontario. Information along this line received at first hand from Mr. Driver is highly appreciated.

Opportunity was also provided for the High School teachers in attendance to learn the method of operation and the usefulness in Agricultural education of the motion picture machine. It is expected that in the near future the Department of Education may provide a few such machines to be sent from High School to High School where Agriculture is being taught, along with sets of films illustrating different topics of Agriculture. Having this in view, it was deemed wise to give the teachers of Agriculture practice in operating motion picture machines.

The social features in 1918 were not so effective as formerly because of the fact that the men roomed down town. However, two enjoyable and profitable excursions, one to Rockwood and the other to the convalescent hospital, were carried through very successfully.

A pageant given by the boys and girls of the neighbourhood provided considerable amusement.

But, perhaps best of all, was a picnic outing on the afternoon of August 1st to which all those in attendance—inspectors, teachers, and rural leaders—were invited.

These courses are improving year by year, and the College staff spares no pains in providing the very best the College can supply. The teachers and inspectors appreciate very highly the splendid efforts put forth by those in charge.

Dr. Cody, the new Minister of Education, spent a day visiting the class-rooms and expressed his whole-hearted sympathy with the work of the staff, and realized that those in attendance upon the classes were gaining much that will increase the efficiency of the rural schools. At the close of the afternoon session he delivered an inspiring address in the gymnasium to the inspectors, teachers, and others—about 600.

A new Manual on Elementary Agriculture and Horticulture has recently been published, which will prove, no doubt, of considerable assistance to the teacher. This manual may also serve to bring more fully to the minds of the Instructors of the Summer Courses in Agriculture the body of material to be made use of, and the character of instruction likely to be most serviceable in Forms III and IV (Grades 5 to 8) of our Public and Separate Schools.

APPENDIX G

THE LIBRARY OF THE DEPARTMENT

The Honourable H. J. Cody, M.A., D.D., LL.D.,
Minister of Education for Ontario.

Sir,—I beg to submit the Report of the Library of the Department of Education for 1918.

The Library of the Department of Education is, in the main, a pedagogical library. It serves two classes of persons: (1) The staff of the Department, the inspectors and teachers at work in the various classes of schools, and persons reading for degrees in pedagogy or investigating problems in education. (2) The students-in-training in the Toronto Normal School.

It contains over 35,000 books covering every phase of school work; reports and official publications of Departments of Education in the British Empire, United States, etc.; and bulletins and monographs from such institutions as the Bureau of Education in Washington, and the Teachers' College in Columbia University. Its list of 126 periodicals includes the leading British, American, and Canadian Educational journals; and magazines devoted to literature, art, history, geography, science, mathematics, economics, psychology, etc. New books are added from month to month.

To persons in class (1) above, books are loaned for a period of two weeks, which may be extended on request, provided there are no other applicants in the meantime. The Department pays the postage out and the borrower the return postage.

A number of inspectors and teachers use the library frequently, but there are many who either do not know that it is at their service or do not realize how helpful it can be. To illustrate its usefulness:

In reply to requests for information there have been sent out recently books, bulletins, and periodicals dealing with supervision and inspection of schools; state, city, and township surveys; consolidation of schools; vocational, industrial, and technical education; open air schools; medical inspection of schools; the school as a social institution; housing; education of the feeble-minded; bilingual teaching; value of the classical languages in education, supervised study; scales for the measurement of intelligence; standardized tests for determining progress in various school subjects; experimental studies in the psychology of various school subjects; history of education in different countries; bibliographies on questioning and on professional books and school journals for teachers of rural schools. To these may be added requests for books on methods of teaching the various school studies, for books to supplement the school texts, for books to be read for degrees in pedagogy, and for books of service to students taking courses in the Ontario College of Art.

There is, of course, a steady demand for books on literature, history, biography, travel, science, the useful arts, etc.

If there were a general catalogue of the books in the library, or if catalogues of separate departments such as education, language, literature, art, mathematics, science, history and biography, geography and travel, etc., were published and distributed, inspectors and teachers would know what the library contains and would take advantage of the opportunities offered them for studying the best books on education and increasing the range of their own reading.

For students-in-training in the Normal School, the library has a large supply of reference books—dictionaries, encyclopaedias, gazetteers, atlases, concordances, books of quotations, year books, readers' guides, etc. It offers them a wealth of material to supplement the instruction given in the lecture rooms and in their text-books. It supplies them with ample information on subjects which they are assigned to teach and with suggestive methods of presenting such subjects to their pupils. It provides them with opportunities to become acquainted with standard literature—history, biography, poetry, fiction, etc.—works of inspiration and re-creation. Through the use of the periodicals, they may keep in touch with the intellectual, social, and political life of the time, and with current thought and practice in education.

But it is to be regretted that the usefulness of the library is lessened because so many students do not know how to consult, intelligently and quickly, dictionaries, encyclopaedias, atlases and other reference books. Few are aware of the variety and extent of the information contained in a modern dictionary. Many are unable to interpret accurately the diacritical marks and signs used to indicate the pronunciation of words in one or more dictionaries, or to make a correct choice of definitions and synonyms. They have not had direct, definite, and systematic instruction in the use of reference books, especially the dictionary. The habit of consulting such books has not been established nor is their value appreciated.

Many do not know how to use advantageously, tables of contents, indexes, chapter headings—those technical devices by which the reader obtains, with reasonable economy of effort and time, the purpose and plan of a book, a general idea of the topics treated in it, and whether it is likely to be of service or interest to him.

The student who is not given this instruction and training during his high school course is, to that extent, impeded in his studies, is unable to take full advantage of the help which the school library offers, and is handicapped when he enters a normal school or college.

Many students do enter on their normal school course without this training, and the lack of it becomes very evident when they attempt to use the library to supplement lectures, to prepare lessons for practice teaching, or to search out for themselves information needed to solve some problem or to justify some opinion. These students need, for immediate service, a little instruction and considerable individual practice in the use of reference books, on how to find books on the shelves, and on the distinctive characteristics of leading periodicals.

But there is a further training to be provided for. The young teacher, when he completes his normal school course, will, in all probability, have charge of one of the 5,381 rural school libraries in this province, and its success or failure will depend mainly upon him. The rural school library is not simply a supplementary agent, but a vital factor in school work. What practical preparation for this important phase of his work does he receive during his professional training?

The course prescribed for Literature includes the following:

"Principles to be kept in view in selecting works for the school library; methods of making use of the school and the public library; means of securing the co-operation of the home in the pupil's reading.

Bases of selection of material for the different grades; lists of suitable fairy tales, fables, nature stories, etc., adapted to the lower grades, and of works suitable for the higher grades; complete wholes versus extracts.

The course shall include a course in literature, in part based on selections in the Readers; directed sessional private reading course; suggestions for future reading."

However excellent the lectures on principles to be kept in view in selecting books for the library and on methods of using them, such instruction must be followed by carefully supervised practice work in the library if it is to be effective. To select several books, to evaluate each in the light of the purpose it is to serve, and to say in what class each should be used is one of a series of practical problems the solution of which will help to show how far the principles of selection have been grasped by the student. But it is the personal element in such work that is vital. It is the discussion of a book with a student or group of students, from time to time, that arouses interest, that evokes personal opinion, that shapes criticism, that develops a taste for good literature and tends to establish the library habit.

It does not appear that provision has been made for instruction in library organization, that is, in purchasing, accessioning, classifying, and card-indexing (cataloguing) books or in recording circulation and returns. This work is essential in every library if business methods are to be employed and intelligent direction and continuity of policy secured.

In all, or nearly all, of the state normal schools in the United States there are definite courses in library training, varying in length from a few weeks to a two-year term with a lesson period each day.

The majority of the students who complete the courses of study in our normal schools each year begin to teach in the rural schools, and it is evident that the preparation which they receive for the practical management of rural school libraries is insufficient.

The number of books added to the library during the year was 1,038; of these 817 were purchased, 43 were donated, and 121 were bound magazines.

The number of books given out as loans was 16,862, and the number drawn for reference in the library 5,165, in all 22,027.

The number of periodicals subscribed for was 126 and the number of loans 1,998. With some exceptions, illustrated periodicals—art journals especially—are not given out as loans.

I have the honour to be,

Sir,

Your obedient servant,

D. J. Goggin,

Departmental Librarian.

The Departmental Library,
Toronto, January 11, 1919.

APPENDIX H

REPORT OF THE INSPECTOR OF PUBLIC LIBRARIES

To the Honourable H. J. Cody, M.A., D.D., LL.D.,

Minister of Education for Ontario.

Sir,—I have the honour to submit the following report of your Public Libraries Branch for 1918, and the statistics, etc., of the Public Libraries of the Province for 1917; also a statement of the grants paid in 1918 to Public Libraries, and to Historical, Literary, and Scientific Societies.

Summary of Matters Worthy of Special Notice

1. During the period of the European war, with every loyal Canadian performing war service either overseas or at home, when peace of mind was unnatural, when many enforced demands were being made on the public, and a slackening of effort in non-war work was excusable, our public libraries made notable progress. Expenditure increased 44 per cent. and the use of books 53 per cent.

2. On the initiative of the Honourable Dr. H. J. Cody all of the military camps in Ontario—fifteen in number—were supplied with libraries.

3. Several military hospitals were furnished with libraries.

4. The circulation of travelling libraries shows an increase of fourteen per cent., exclusive of libraries sent to military camps and hospitals. There is a large field that invites an extension of our travelling library system.

5. A successful training school for librarians and assistants was held.

6. The public library problem requires that our professional training system be placed on a more permanent basis, and that it provide a longer course for specialists and for librarians of city libraries, also a shorter course for librarians of smaller libraries.

7. The circulation of books through public libraries for 1917 was increased by 450,000 volumes over the previous year.

8. Four additions have been made to the free libraries' list, and six association libraries were organized.

9. Notable progress has been made by several of our larger town and city libraries in raising their standard of service. All important appointments and promotions were given to trained persons, and the majority of them on the recommendation of the Inspector of Public Libraries.

10. The salaries of the librarians and assistants in a number of libraries were appreciably increased. In every case where qualified librarians and assistants were required to fill vacancies, the salaries that were offered were considerably higher than were formerly paid for the respective positions.

11. Experiments were made in organizing new association libraries by sending a member of the Inspector's staff to three communities where prospects seemed

favourable for library establishment. In each case a library was organized during the day of the staff-member's visit, funds were secured for books and furniture within a few days after the visit, and all three libraries are now serving their communities.

12. The greater interest that small libraries are showing in careful and systematic book selection is serving as a test to prove (1) that the book trade is either unwilling, or considers it unprofitable to fill satisfactorily small orders of well-selected books suited to the needs of small town, village and rural libraries, (2) that some action should be taken by the Department to secure for the smaller libraries a satisfactory means of securing the books best adapted for their needs.

13. The public library situation calls for more professional service from the Department, notably in professional training, library inspection, and editorial work.

14. The staff of the Public Libraries Branch requires to be strengthened by the addition of a few trained assistants. The responsibilities already assumed by the Branch can not be met successfully by the present organization. A large and progressive programme including more adequate inspection, a satisfactory training system, extension of travelling library service, and better editorial work, makes an urgent demand for strengthening and reorganizing the Branch's forces.

15. The two rooms occupied by the Public Libraries Branch are unsuitable and altogether too small. The work is seriously retarded for the want of proper accommodation; four times our present floor-space should be available for travelling libraries alone. Thousands of books are now kept in small boxes in the basement of the building. It is impossible to assemble our book collection. All of our equipment for library school purposes must be packed in boxes between school periods; the school work is made unnecessarily difficult for the want of more accommodation.

16. The Inspector of Public Libraries was unsuccessful in an attempt to arrange a system of co-operation with the Minister of Soldiers' Civil Re-establishment, Dominion Government, for the purpose of serving returned soldiers with books to supplement their vocational instruction.

17. Five library training schools in the eastern United States invited the Inspector of Public Libraries to give a lecture to their respective classes. The Schools visited were: New York State School, Albany; New York Public Library Training School, New York; Pratt Institute School of Library Science, Brooklyn; Simmons College Library Training School, Boston; Library Training School, University of Syracuse, Syracuse.

The Public Libraries are Progressing

All indications point to progress on the part of our public libraries. Several have made notable advances, a large number have shown appreciable progress, and too many have "marked time." On the whole there is reason for congratulation.

We have a certain number of libraries that will compare favourably with the best on the continent in building, books, organization, service, and results; a larger number are doing fairly good work, and the majority have not reached a reasonable standard. I believe that the Public Libraries Branch is making progress toward the realization of a higher average standard of public library service for the people, and that with a stronger organization, better facilities, and new legislation and regulations, a high standard should obtain in the near future.

Former reports have referred to the limitations under which the majority of libraries have been working, and also to desirable policies for adoption by the Department; these with matter dealt with in this report will be placed in proper form before the Minister during 1919 in the hope that satisfactory means of solution will be provided for the several problems.

Libraries for Soldiers-in-Training

One of the first acts of the Minister after accepting his portfolio was to instruct the Inspector of Public Libraries to place libraries in all of the military camps in the Province for the use of the soldiers-in-training. A large file of letters from officers-commanding and others testifies to the popularity of the libraries and to the appreciation of all who made use of the books.

Each camp was visited by a representative of the Public Libraries Branch for the purpose of studying conditions and of arranging for the reception of the books and for their circulation. The purchase of the books, their preparation for use, shipping, etc., were all done within a few weeks.

About 8,000 volumes were purchased and 2,500 were received as gifts. The libraries sent out ranged from 250 to 2,500 volumes each.

The camps served were:

Niagara Camp.
Petawawa, Artillery Camp.
Petawawa, Infantry Concentration Camp.
Petawawa, Siberian Force.
Deseronto, Headquarters Camp.
Leaside (R.A.F.).
Fort Henry Camp.
Camp Borden (R.A.F.).
Camp Borden (Quarantine Camp).
Camp Rathbun (R.A.F.).
Camp Mohawk (R.A.F.).
London Camp.
Beamsville, School of Aerial Fighting.
Armour Heights (R.A.F.).
Brockville Camp.

Thirty-five ladies, members of the Toronto Public Library staff, very kindly assisted in preparing books for circulation.

The Toronto Public Library presented the Department with 2,000 volumes secured in a "book-drive" for the use of soldiers, and the Peterborough Public Library contributed 500 books.

Libraries for Military Hospitals

Several military hospitals and institutions used by returned soldiers were supplied with travelling libraries through the year, and after the signing of the armistice in November, the camp library books were called in and sent out for the use of returned men.

The following places are using Departmental libraries:

Whitby Convalescent Hospital.
St. Andrew's Convalescent Hospital, Toronto.
Davisville Orthopaedic Hospital.
Guelph Military Hospital.
Mowat Sanatorium, Kingston.
Wellington Street Barracks, Ottawa.
Imperial Munitions Board, Beamsville.
Soldiers' and Sailors' Settlement, Kapuskasing.
Soldiers' and Sailors' Training School, Monteith.
Freeport Hospital.
Fort Henry Hospital.

Ontario Libraries and War Service

During the period of the war our librarians, assistants, and trustees as a class, took prominent parts in various kinds of war service, and in supplying literature for soldiers-in-training. The libraries that were situated near training camps and winter quarters welcomed the soldiers to their libraries, and many of them sent books for use in the camps.

The conditions under which Canada went into the war and trained her men did not favour the formation of a library organization from the beginning that would serve the soldiers in the way librarians would have liked. We entered the war early in August, 1914. We knew so little about war that many thought it would not last long, and that the first contingent might be the last one to cross the Atlantic. Our first contingent men were mobilized, their clothing was made, they received a certain amount of training, and left our shores on or about the 24th of September, 1914, for England. When the men who were to form the second contingent were marching on our streets, many wondered if they would ever see the firing-line, so little did we realize the great problem that was before us.

Our men were not trained in permanent camps. The places that were to be chosen for training and for winter quarters were very uncertain. The whole scheme was of such a nature that the best kind of library service could not be performed. How different it was with our friends across the border with two years of study and experience of war conditions, with their large permanent cantonments—conditions which favoured the wonderful library organization of the American Library Association which served the soldiers-in-training for a year and a half. Our libraries did their best under existing conditions. During 1918 the libraries furnished by the Department of Education gave an adequate service to all of the camps in Ontario.

Travelling Libraries

The circulation of travelling libraries has increased somewhat. This division of the Branch was turned to good account in serving soldiers in camps and hospitals. There is a tremendous field in Ontario for extending the benefits of travelling libraries, but the work is hampered in every conceivable way. More accommodation is required for this work; it is impossible to assemble the collection of books in the small room in which most of the books are kept. More room, more books, and sufficient trained help are required. The Department has a big travelling library problem.

Professional Training

The Department has advanced creditably in the professional training of librarians. The work of the last three schools has been highly appreciated by a large number of libraries throughout the Province, and a keener interest is being shown by library boards for securing the services of assistants and librarians who have been trained in the Departmental school. This phase of our work requires the best consideration of the Minister. The course extending over nine weeks such as was given in 1917 and in 1918 has produced excellent results, especially with unusual students and those that had experience under good conditions. After the experience of 1917 and 1918 I am convinced that the course is too intense for the average library school student: the majority found it very difficult. The

course contained nothing that was not required in an elementary course; therefore, the only satisfactory change that can be made is to lengthen the term to three months. This would give us a course part way between a short course and a full course.

Conditions in Ontario really require three types of library training schools (1) a short course covering one month for the training of librarians in small towns and general assistants in town and small city libraries; (2) a course similar to the one given in 1918 but extended over three months; (3) a full course covering an academic year. A school could be organized that would include the features of these three courses. The cost would be about $4,500 more than the amount that is provided at present for the nine weeks' course. I have good reason to believe that a full-term course covering approximately eight months, would be highly appreciated by the libraries of Ontario, and would be patronized to an extent that would justify the establishment of such a school. This would be the ideal course for all those wishing to take library training, but for economic reasons the majority of students require a shorter course.

A three months' course would be of considerable value and would for some time attract a large number of students. It would service well for training general assistants, and librarians for large towns and small cities.

A one-month course would serve to train those who could not take a longer course, and would give the kind of training that should be demanded of the librarians in the smaller towns.

In the classes of 1916, 1917 and 1918, the primary object was to train those who had library positions, and in organizing the course we assumed that each student would, through experience, have gained an insight into librarianship, but the great majority of the students had little or no experience, and a number of them had a kind of experience that was of little value to them in the study of modern librarianship. The ones that had had experience that was really worth while were very few in number, but they proved to be the most desirable students in that they left the school capable of doing excellent work according to modern standards.

The cumulative effect of our work in professional training, and the emphasis that we have placed on the necessity for a higher standard of librarianship have brought us to the point where a permanent patronage is assured for library training classes. If regulations are to be brought gradually in force calling for the certification of librarians, a more adequate and permanent system of professional training should be decided upon during the year 1919.

Publications

The Ontario Library Review and Book-Selection Guide, has been published each quarter.

Late in the year we published a pamphlet "Filing Rules for Dictionary Catalogues," by Miss Winifred G. Barnstead.

Several new pamphlets for the instruction and guidance of librarians and trustees are required. It is the intention to recommend the preparation and publication of such works from time to time.

Small Libraries Require a more Satisfactory Source from which to Purchase Books

Progress is seriously retarded in the large number of small libraries throughout the Province for the want of the right kind of bookselling service. The im-

portance of this matter deserves immediate attention. The Department should establish a book-room for serving libraries that are established under the laws of the Province, or arrange for the organization of a satisfactory private store and collecting agency.

The smaller public libraries, fully 350 in number, and, I believe, the several thousand school libraries throughout the Province, are faced with the difficulty of not being able to obtain reasonably good service when they want to purchase the best kind of books for their purpose. The Public Libraries Branch and, I know, the school authorities have done good work in encouraging wise book-selection, and catalogues have been compiled, and carefully selected lists have been issued from time to time, for the use of public libraries and schools. Such work can not produce satisfactory results if library boards and school boards can not procure the books they select, except through an exceedingly difficult process—so difficult that not one library or school in fifty will adopt it. The buying power, or perhaps the buying *humour* of small libraries of all kinds is not as great as though the securing of the right books were reasonably easy.

Our libraries of all kinds should be representative libraries, that is, they should represent the book needs of their possible patrons. It is obvious that every lot of books purchased should help to form and contribute to the building of a representative library. The book-trade in Ontario does not offer the kind of service required by small library "builders."

The stocks of wholesale dealers merely represent the few books whose sale is being especially promoted. If one were to visit every dealer in Toronto at a given time, he could collect a fair number of good new books, that is, each volume might be a worthy one, but as a collection they would not form a wise three months' purchase of new books for a library; many classes of books required for library use would be unrepresented. The situation was well stated by one of our library school students in answer to the following examination question:

"You have used several representative reviews recently, and you have seen the books that represent the stocks of recent publications offered for sale by Toronto publishers and wholesale dealers. Assuming that the stocks are typical representations of what the dealers offer for sale, discuss concisely the respective merits of selecting from the best reviews and from dealers' shelves."

The answer: "There is no comparison, to my mind, between a list of books chosen from representative reviews and selection guides—such as we have used lately, and from the publishers' stocks. I should say that not more than one-tenth part of the new books was exhibited; there was an absence of a large number of recent desirable books, and there was an insufficient variety of classes. Of course it is an advantage to see the books one is selecting from, but when the books available for examination do not represent the best in all classes and kinds they do not serve as a safe source for selection for a library. Good reviews and selection guides are written usually by competent reviewers, and book-selectors; with a wise choice of such guides for systematic perusal, and a discriminating use of them, one may select from a wide field of books in every class of literature and secure the quality and variety of books required by one's community. It seems to me absolutely senseless to depend upon the few unrepresentative books that can be seen. I would use reviews systematically and compile a list of my selections. I would examine the books I could see, and when so doing I would keep in mind the books on my list chosen from the wide field and from all classes. I would be influenced by my list and my knowledge of the field of available books, and not by dealers and travelling salesmen whose sole object is to *sell, sell, sell,*

and from their own 'favourites.' I would make my own selections and patronize a firm or adopt a system that would ensure my getting the books selected."

The answer given by the student is a good one. By following the method described her selections from *new books* would, in all probability, be representative. If she were a librarian in a town, village or rural library, her chief difficulty would be in obtaining the books selected.

I have before me a list of 168 new books suitable for a town library. They were all published between August and December, 1918, and represent 56 different publishers. Less than half of them were obtainable in Toronto in January, 1919, and among the books absent from dealers' stocks were many popular ones of the highest educational value. It would be interesting to make a list of the best books that were on sale in Toronto nine months or a year ago, and try to discover how many of them are purchasable there now. A case comes within our experience where a librarian selected eighty books that he considered the best eighty for a small library from the publications of the preceding twelve months; only eleven of them were obtainable in Toronto at the time the list was made. As the average small library purchases its books at rare intervals, it will be readily seen that it must depend upon something more than the stocks of Toronto dealers for procuring the right new books.

It is quite apparent that small libraries can not obtain from Ontario wholesalers' and publishers' stores representative selections of new books even by keeping in continuous touch with what is on sale. But our libraries can not keep constantly informed. A small library is a small and infrequent purchaser. It depends usually on one or two dealers who prefer to sell the books in which they have a special interest. They are usually willing to collect other books on an order-list from other dealers in their own city; but at the best they can only secure locally the books that happen to be on hand at a particular time. If a list contains the best selections covering a period of several months, there is a temptation for the dealer to offer substitutes; experience has proven that small libraries are rarely favoured by having books imported for them. The average small library order being small, importing for it is evidently not looked upon as desirable business under present conditions. The library in turn does not care to receive promptly the few books that are picked up easily, and then receive others at intervals thereby adding extra express and postage charges, and at the same time being uncertain as to whether some of the books will ever be received.

The results that obtain with a very large number of our libraries are not the best that might be expected even under the undesirable conditions referred to. Our records show that the majority of the small libraries are victims of firms that send nothing but books from one stock, and the ones that happen to be in the shop at the time of shipment. The dealer sends a box of books on approval, and several months' purchase money is expended for books from the said box. To the exclusion of what other dealers have to sell at the time, and what none of them have to sell except by importation, the library makes its choice from a narrow, unrepresentative selection consisting of a few good books and others not so good, with many classes absent. It will be easily seen that repetitions of this method of selection and purchase year after year will not contribute to the building of a well-balanced, representative library. The small libraries are partly to blame for this. There has been a notable improvement of late, but the difficulty in securing carefully selected books is a hindrance to our work in encouraging better book-selection.

The preceding remarks will show that the small public libraries and the school libraries are not provided with a satisfactory means of obtaining what they require from the output of *newly published* books. But new books are not all that are wanted.

Books other than those of current publication form a substantial part of a well-managed library's selections for a year. Replacements are always needed, and classes and departments require strengthening, therefore, books one, two, five, and ten years old are wanted, and also selections from the books of all time. There are several hundred titles representing all classes of books that should never be unobtainable in Toronto. Copies of them would sell in numbers ranging from a few to a few hundred every year.

Difficulty in securing desirable books other than new ones discourages the average library from selecting from the whole field of approved books. When the books were being selected in 1918 for the use of the soldiers-in-training in Ontario camps, the Department was unable to procure the kind that would form good, representative camp libraries. Several classes were represented by a few odd new books, a few classes had nothing in them; there were many kinds for which the demand would have been very great, but they were not procurable in Toronto. The libraries that were sent to the camps were, through necessity, purchased within a few days, there was no time to wait for books to be imported. The result was that we secured a few thousand attractive volumes that would please readers who did not want any kind of books in particular but just something interesting. There was a striking dearth of literature in natural science, useful arts, religion, sociology, history, and travel; in fact, the only works that were obtainable in quantities were the most recent fiction, reprints of popular fiction, and war books. One would expect that sixteen camp libraries of a representative character could be purchased in Toronto—the centre of the Ontario book-trade, but such was not the case.

The following will briefly describe the book-trade in Toronto—apart from the retail stores:

We have about sixteen firms that sell regularly either directly or indirectly to libraries:

1. The publisher who publishes a few books each year in Canada, but the chief part of his business is to serve as the Canadian branch of an English or American publishing house. He may have the agency for two or three other houses that are not—in the strict sense—competing firms. There are six of these firms in Toronto.

If one wished to secure the books on the typical small library list of 168 quoted above, where 56 publishers are represented, it is obvious that firms of this type would not give satisfactory service. The objection to small libraries dealing with firms of this kind is that the zealous salesman is likely to sell to almost the limit of a small library's book fund to the exclusion of desirable books published by tens and hundreds of other publishers. A carefully selected order of books for a small library would contain very few works by any one publisher.

2. The publisher who publishes a few books each year in Canada and acts as the general agent for a few English and American firms. This kind of dealer rarely, if ever, handles anything but the books published by himself and the firms he represents. There are six of this type in Toronto.

It is perfectly clear that the small library orders with their great variety cannot get satisfaction by dealing directly and exclusively with a firm of this kind.

3. The firm that publishes a few books each year in Canada; purchases certain books in large quantities and is granted the privilege of having its imprint on them; holds the agency for several English and American firms (principally the latter), and claims to do a general wholesale business, that is, secure for purchasers the books of all publishers. There are three firms of this kind in Toronto.

It would appear on the surface that this type of dealer could serve the small library satisfactorily. It should be able to do so, but it does not. These firms carry very little variety of books in stock. They should be able to collect for small libraries books required from the English and American markets, but this kind of work receives but scant attention, and libraries have not received satisfactory service. The books that can be picked up in Toronto will be supplied with fair satisfaction by these houses, but the same can not be said about other books. This type of firm is becoming more and more interested in its own specialties and less and less in the general wholesale business. The small library order requesting one copy of each book on its list is not looked upon with favour as compared with trade orders of a hundred copies of one book or with large library orders of several copies of a number of books. Experience has proven that the service from these firms is inadequate for the smaller libraries, and the records in the Department show that these dealers have been trying to fill the smaller libraries with the books they are anxious to sell.

4. *The retail dealer* has not been an important factor in supplying libraries. The real book-seller who knows books and is the guide and friend of the book-buyer is hard to find; his class is almost extinct, one could count its representatives in the Province on the fingers of one hand. I recall but four retailers who sell more than a few books to public libraries, and the service given is better than the average. One of these men has sold "remainders" and other bargains to a few libraries, and he would gain on the whole if a Departmental scheme were adopted, in that larger quantities of his specialties would be likely to find a market. The retail dealers' business with public libraries is so small that this type of house would lose little if a central warehouse were established. The consideration of the little loss would be entirely outweighed by the great benefit to the libraries.

Among the 408 public libraries in the Province 255 expended last year less than $100 on books, 90 between $100 and $300, 23 between $300 and $500. The ones that expend more than $500 are not as seriously affected by the condition of the book trade as the smaller buyers. In addition to the public libraries, we have more than 5,000 rural school libraries that should expend $10 or more each annually for books. In view of the large number of small purchasers among the public and school libraries—and the former should not confine themselves to purchasing once a year—it is obvious that the number of small purchases that should be made from time to time is very large. It is apparent also that with the small purchaser it is not practicable to deal with individual publishers or with several booksellers. Every library's purchases for the year should include: 1. New fiction—the best and most select. 2. Children's books, some new and many not new. 3. New books in the several classes. 4. Books other than those of current publication. The variety that books of this character would represent calls for a kind of bookseller's service that is not in successful operation in Ontario at the present time.

The publishers and dealers, no doubt, know their own business and are working along the most profitable lines. Filling orders for small libraries may

not be as desirable as other kinds of business; the sum total of it may not justify a firm in specializing in it, and there may be good reasons for dealers not offering good service to libraries. The book men have often complained of the purchasing habits of the small public and school libraries and no doubt there have been grounds for complaint. The libraries say that they can not get carefully selected books when they place orders; there is considerable truth in their statement. There is no doubt but the libraries as a class as well as the dealers are to blame for the kind of service that obtains, but the fact remains that small libraries that play their part properly can not get dealers to do likewise. It is perfectly clear, however, that there is little use in guiding libraries in book-selection with facilities for securing the best selections in their present state.

I have never met an Ontario dealer who shows evidence of an understanding of the public library problem, or one who has really gained the public library point of view. There have been plenty of opportunities for publishers and dealers to study the real needs of public libraries but, evidently, the matter has not been considered of very great importance. I should say further that I have yet to learn of any dealer maintaining a good office system for adequately dealing with library orders. Surely with 408 public libraries and 5,000 school libraries Ontario should have at least one place where persons conversant with library affairs are employed for the purpose of dealing with library business.

As no firm in the business is giving satisfaction to the small libraries, is it not time for the Department to take steps to secure adequate service for them?

The most satisfactory solution of the book-purchasing problem for small libraries and other small book-purchasers among institutions established under Ontario statutes would be to establish a "Department of Education Book Room."

A Departmental book-room is desirable for the reasons that:

1. The room would be maintained for the betterment of libraries and not for financial gain.

2. It would have a representative stock of books containing at least those recommended for public and school library purchase including new books and ones not of current publication that are required from time to time by libraries.

3. Nothing but approved books would be sold.

4. The kind of service would encourage book-buying and better book-selection.

5. The Department would be kept in continuous touch with the work of the libraries in book-purchasing.

6. The small libraries would likely buy at rates as low or lower than charged at present; all books imported for stock would come free of duty by reason of their being for library use only. Books imported by libraries or especially for them are duty free. Those that are purchased by dealers for their stocks are not free; therefore, duty is paid on all books that are purchased from stocks.

7. Books by Canadian and other British writers would be available in Ontario in greater proportions than formerly.

8. The benefit of bargains in publishers' remainders could be extended to all libraries.

9. Publishers and wholesalers as a class would welcome a Departmental book-room. They would prefer to sell in quantities to the Department rather than in single copies to libraries. They would gain by the total increased sales that would be more to the smaller buyers through the establishment of a central book-room.

The investment for establishing a Departmental book-room that would serve town, village, and rural public libraries and school libraries would be about $40,000. This would provide for annual sales of $100,000 or more. The nature of the business would hardly justify an estimate for a "turnover" of more than three times a year. First cost plus twelve and a half per cent. would be a sufficient charge for books to cover cost of books and of handling, etc. After the establishment of a book-room it should pay its own way; the only expense to the Government should be the invested capital, and the furnishing of rent, light, and heat.

I believe that the Government would be more than justified in opening a book-room. Better service for libraries is a necessity; I trust that some action will be taken to establish a book-branch or to secure service that will give equally good results.

Public Libraries and Technical Education

Credit in good measure is due to our public libraries for work accomplished in promoting the use of technical books. During last year 120,000 books classified as "Useful Arts" were lent by the public libraries of the Province. An inestimable amount of good has been done by our libraries in a quiet way in assisting men and women in vocational study, and we hear too little about it. The libraries are entitled to be rated as an essential part of our technical educational system. It is to be hoped that all who have vocational training at heart will remember the library, and encourage the use of the printed page.

The libraries serve a larger number of people with technical books than will ever be reached by technical schools.

The libraries can provide books on subjects that are not commonly taught in technical schools.

The libraries can supplement the work of instruction given in technical schools.

The libraries can assist technical schools in organizing libraries of their own.

The libraries offer service in places where there are no technical schools.

The libraries can serve men and women who can not attend a technical school.

Public Library Board and Chief Librarian of Toronto

The Toronto Public Library Board and the Chief Librarian, Mr. George H. Locke, placed ideal rooms in the Reference Library at the service of the Department for the library training school, and gave unasked the use of the several departments of their system for practising privileges for the students. The school has enjoyed the same kind of assistance from the Toronto library for the last three years. The Board and Mr. Locke do not confine their interest to the city of Toronto; they are always willing and anxious to assist the library movement throughout the Province; in many ways they have been a source of strength to the Public Libraries Branch.

Special Libraries and Library Associations

The Ontario Library Association.—This association is enjoying progress and is contributing appreciably to the library movement. The leaders have officially expressed a strong desire to play their part in developing better conditions in the rural districts of the Province, and cherish the hope that the public library will receive due consideration in any future scheme for educational advancement. The members are at all times ready to assist the Public Libraries Branch in the

interest of better libraries. The present library system owes a great deal to the Ontario Library Association.

Reading Camp Association.—Mr. Alfred Fitzpatrick, Superintendent, reports as follows:

"The Reading Camp Association endeavours to develop the frontier toiler's mind and the scholar's body. Horace Mann, long ago, said that: The labour of the world has been performed by ignorant men, by classes doomed to ignorance from sire to son.

"The charge has also been made that the so-called educated classes lack proper physical development and not infrequently degenerate into mere 'refined gossips.'

"The Association endeavours to bring these two classes together. It tries to get the student and educationalist to share the excessive burdens of the woodsman, navvy, miner and fisherman; and to bring to him as much light and learning as the limited spare time at his disposal will permit the worker to receive.

"Like mercy, this effort on the part of the teacher 'is twice blest. It blesseth him that gives and him that takes.' The instructor who grasps the work, like a man of metal, usually returns not only with a vastly broader outlook on life and a kindlier feeling towards his fellows, but with greatly improved physique.

"During the last twelve months, 19 camp teachers were employed in the Province of Ontario. These were supplied with small libraries, night school outfits, current magazines and newspapers.

"As owing to the war we were unable to secure our full quota of instructors, we tried to make up for this lack by supplying literature fortnightly to forty-five camps at which no teacher was located."

Canadian National Library for the Blind.—The librarian, Mr. Sherman C. Swift, makes the following statement:

"Concerning the operation of the Canadian National Library for the Blind for the year 1918, I have the honour to report as follows:

Books and music issued	9,737
Circulation for Ontario	5,101
Total number of volumes added	759
Value of same	$578.08
New members added	59
Total membership, December 31st, 1918	572

"You will notice that nearly 54 per cent. of the total circulation for Canada and Newfoundland was accredited to Ontario.

"The total number of volumes added does not indicate the number of volumes ordered. We have one for $500 worth of books placed in Great Britain, which has not yet been filled. The value of books actually received is in some instances given from the catalogue, since the whole consignment has not yet been invoiced to us.

"Our printing department has printed the Ontario Public School Primer for the Ontario School for the Blind, using the Braille system. It is proposed to publish the whole series of public school texts. On December 14th the members of the Library in general assembly voted to affiliate with the Canadian National Institute for the Blind and to act henceforth as the library department of the organization. This step was found necessary in order to simplify administration, avoid friction, and to lessen the possibility of confusion in the minds of the public.

"The operation of the printing department will shortly mean considerable additions to our staff of employees. We, therefore, trust that the Government may see its way clear to a large increase in its grant to the Canadian National Library for the Blind."

Statistics

I present herewith a statement of the statistics of the Public Libraries of the Province and a statement of the grants paid to Historical, Literary, and Scientific Institutions.

I have the honour to be, Sir,

Your obedient servant,

W. O. Carson,

Inspector of Public Libraries.

Toronto, January 25th, 1919.

ASSOCIATION PUBLIC LIBRARIES

Statistics, 1917, showing Legislative Grants paid in 1918

No.	Library	Reading Room	Population	Total Expenditure	Volumes in Library	Circulation	Legislative Grant paid in 1918
				$ c.			$ c.
1	Admaston		No annual report for 1917				
2	Agincourt		Organized November 20th, 1918				
3	Alma		250	29 25	1,548	1,482	.....
4	Almonte	R	2,700	153 46	4,238	5,620	53 34
5	Alton		700	110 24	5,085	3,235	38 89
6	Angus		400	75 15	890	.....	26 71
7	Arkona		429	124 12	2,718	1,960	28 99
8	Assiginack		No annual report for 1917				
9	Athens		775	141 14	1,649	1,318	55 80
10	Atwood		600	61 74	1,215	1,073	10 00
11	Auburn	R	250	110 23	1,596	1,599	42 27
12	Badjeros		Rural	45 72	733	618	.....
13	Bath	R	366	152 25	1,128	4,278	19 85
14	Bayfield		400	147 94	590	2,875	63 08
15	Bayham		300	96 79	934	367	41 00
16	Baysville		168	54 92	853	1,254	17 98
17	Beachville		500	72 70	1,639	1,535	.....
18	Beaverton	R	1,060	167 50	1,858	967	42 50
19	Beechwood		Rural	143 77	1,037	763	65 18
20	Belwood		183	129 33	2,659	2,887	38 05
21	Blenheim	R	1,500	509 30	5,128	13,380	107 28
22	Bloomfield		800	27 47	1,384	1,603	.....
23	Blyth		750	41 20	2,442	.....	10 00
24	Bobcaygeon	R	952	247 10	3,290	3,160	80 07
25	Bolton		628	67 63	.....	.....	.....
26	Bowmanville	R	3,500	355 50	4,468	6,586	86 13
27	Bridgeburg		2,019	384 80	3,006	6,440	134 69
28	Brigden		500	83 20	1,095	.....	10 00
29	Brooklin		Rural	132 18	3,190	3,301	42 82
30	Brownsville		250	134 58	1,188	2,644	34 54
31	Brucefield		200	74 25	1,859	1,628	10 00
32	Burgessville		200	135 77	900	1,240	30 18
33	Burlington	R	2,431	468 30	4,372	4,015	47 72
34	Burnstown		No annual report for 1917				
35	Caledon		200	95 05	3,122	1,570	31 23
36	Cambray		Rural	107 75	2,174	1,412	36 82
37	Canfield		165	63 86	965	693	16 38
38	Cannington	R	750	95 75	2,003	2,048	24 19
39	Capreol		Organized, December 5th, 1918				
40	Cargill		400	215 00	3,463	4,841	79 58
41	Chatsworth		374	65 49	1,592	840	.....
42	Cheapside		100	66 93	2,367	1,400	27 78
43	Chesterville		No annual report for 1917				
44	Claremont		325	110 35	2,615	1,583	36 87
45	Clarksburg	R	600	338 47	2,011	2,398	140 01
46	Claude		Rural	47 48	3,415	792	21 73
47	Cobourg	R	4,800	660 51	5,073	16,773	144 10
48	Colborne	R	1,020	100 54	2,150	874	47 29
49	Coldstream	R	100	87 74	1,984	1,838	37 98
50	Coldwater		600	125 51	2,101	3,923	19 27
51	Comber	R	700	226 22	3,134	2,634	65 83
52	Cookstown		475	36 36	1,767	2,073	12 71
53	Copleston		No annual report for 1917				
54	Copper Cliff		Reorganized March 5th, 1918				
55	Delta		400	67 65	793	1,739	20 16
56	Depot Harbour		No annual report for 1917				
57	Don		Rural	94 57	1,599	764	28 08
58	Dorchester		500	86 80	1,692	2,033	15 72
59	Drumbo		400	134 17	2,700	2,421	67 56
60	Duart		130	41 55	2,238	312	.....
61	Dundalk		750	240 31	2,814	2,387	35 96

ASSOCIATION PUBLIC LIBRARIES—Continued

Statistics, 1917, showing Legislative Grants paid in 1918

No.	Library	Reading Room	Population	Total Expenditure	Volumes in Library	Circulation	Legislative Grant paid in 1918
				$ c.			$ c.
62	Dungannon		Rural	95 99	2,433	2,077	21 73
63	Dunnville		3,250	407 79	4,550	11,531	93 70
64	Elmvale		750	95 10	2,456	1,519	40 14
65	Elmwood		Rural	130 70	1,431	2,014	40 34
66	Embro	R	500	211 00	4,839	3,720	83 21
67	Emo		450	89 82	463	700	23 56
68	Emsdale		No annual report for 1917				
69	Ennotville		Rural	149 35	4,357	1,078	57 82
70	Espanola		Organized March 28th, 1918				
71	Ethel		Rural	67 12	1,909	2,615	17 57
72	Fenelon Falls	R	1,015	357 02	5,761	3,485	43 74
73	Flesherton		482	62 64	1,152	587	16 41
74	Fonthill	R	600	137 45	3,824	3,616	51 41
75	Forwich		450	12 00	2,210	602	.....
76	Forester's Falls		250	87 71	1,300	1,577	35 15
77	Fort Erie		1,200	177 59	4,033	2,669	27 38
78	Frankford	R	900	201 90	980	1,717	38 63
79	Fullarton		179	29 73	450	1,016	10 00
80	Glamis		Rural	54 05	954	629	.....
81	Glanworth		50	73 49	400	690	24 75
82	Glen Allan		100	21 82	1,330	761	11 77
83	Glen Morris		200	138 27	2,973	801	62 35
84	Gore Bay	R	713	282 29	1,540	1,482	90 03
85	Gore's Landing		200	32 57	1,586	829	10 00
86	Gorrie		400	50 19	2,100	335	.....
87	Grafton		410	95 91	1,031	1,127	30 41
88	Haileybury		No annual report for 1917				
89	Haliburton		990	71 48	1,768	1,665	19 75
90	Harrietsville		Rural	106 40	720	1,225	40 25
91	Harrington		No annual report for 1917				
92	Harrow	R	500	235 34	1,779	2,301	40 15
93	Hastings		704	29 00	1,198	.....	.....
94	Hawkesbury		Reorganized Sept. 21st, 1918				
95	Hawkesville		250	18 64	924	305	5 00
96	Hepworth		No annual report for 1917				
97	Highland Creek		350	33 80	1,713	882	5 00
98	Hillsdale		360	119 01	1,915	1,315	21 54
99	Hillview		294	9 75	521	440	18 10
100	Holstein		300	98 75	2,121	2,575	29 02
101	Honeywood		100	59 80	828	504	22 90
102	Huntsville	R	2,135	308 43	4,255	7,537	68 92
103	Inglewood		400	113 05	1,236	736	64 37
104	Inwood		Rural	153 27	1,528	2,516	60 84
105	Iroquois		800	72 26	1,818	1,500	19 53
106	Islington		205	168 77	2,903	3,959	67 31
107	Jarvis	R	600	107 19	3,678	1,682	23 42
108	Kars		200	78 05	1,689	1,624	31 06
109	Kemble		81	95 56	1,356	955	.....
110	Kingston	R	23,023	3,664 61	9,557	45,509	260 00
111	Kinmount		450	120 56	1,046	3,112	10 00
112	Kirkfield		100	.....	2,428	.....	.....
113	Kirkton		187	109 11	520	916	34 41
114	Komoka		300	83 61	1,333	1,370	26 68
115	Lake Charles		Rural	82 30	2,470	1,580	.....
116	Lefroy		337	64 54	947	1,286	21 47
117	Linwood		450	34 50	811	586	.....
118	Lucan		700	177 71	1,442	1,346	41 73
119	Lyn	R	200	128 22	744	1,031	37 20
120	Madoc		1,100	273 34	3,172	2,817	43 75
121	Mandamin		200	157 13	1,323	1,610	74 83

ASSOCIATION PUBLIC LIBRARIES—Continued

Statistics, 1917, showing Legislative Grants paid in 1918

No.	Library	Reading Room	Population	Total Expenditure	Volumes in Library	Circulation	Legislative Grant paid in 1918
				$ c.			$ c.
122	Manilla		200	229 27	4,790	2,003	98 11
123	Manotick		No annual report for 1917				
124	Maple		250	108 23	914	478	41 08
125	Marksville		No annual report for 1917				
126	Martintown		Rural	189 26	721	1,775	29 43
127	Meaford	R	2,600	668 83	4,515	9,995	96 51
128	Melbourne		196	39 94	1,254	1,079	10 67
129	Metcalfe		460	85 27	1,104	2,170	5 00
130	Mildmay		900	37 54	2,567	1,210	10 00
131	Millgrove		Rural	41 96	832	1,088	10 64
132	Milton	R	1,950	182 62	4,697	4,120	48 64
133	Minden		300	74 83	2,025	1,412	20 36
134	Monkton		350	36 71	1,409	524	10 00
135	Mono Centre		No annual report for 1917				
136	Mono Mills		Rural	70 98	762	733	.....
137	Mono Road		Rural	48 90	1,401	1,581	.....
138	Moorefield		Organized December 10th, 1918				
139	Morrisburg	R	1,500	593 45	3,439	3,743	99 42
140	Morriston		2,733	45 32	1,405	1,022	10 00
141	Mount Albert	R	550	166 53	1,225	1,984	49 45
142	Mount Brydges		400	462 08	1,184	535	.....
143	Nanticoke		Rural	43 12	2,260	646	11 31
144	Napanee	R	3,000	836 77	8,218	13,651	130 70
145	Napier		Rural	24 29	489	.....	15 78
146	Newburgh		No annual report for 1917				
147	Newbury		375	49 15	1,212	1,965	16 38
148	New Dundee	R	350	120 48	1,146	1,600	60 80
149	Newington		300	39 19	1,063	80	14 33
150	Niagara	R	1,695	396 47	8,834	13,090	133 20
151	Norland		500	93 71	1,232	2,424	10 00
152	North Cobalt		1,900	42 90	466	.....	.....
153	North Gower		400	185 60	2,295	3,088	33 40
154	Norwood		800	123 30	2,514	1,593	36 17
155	Oakville	R	2,974	752 68	5,622	7,762	112 28
156	Odessa	R	700	141 58	1,472	4,037	34 86
157	Omemee		No annual report for 1917				
158	Orono		550	34 58	1,645	1,282	18 35
159	Pakenham		Rural	52 56	830	1,110	5 00
160	Parkhead		Rural	92 09	452	1,428	16 05
161	Pickering	R	600	124 09	1,859	1,260	36 22
162	Pinkerton		80	41 00	2,111	942	10 00
163	Plattsville	R	600	192 61	2,595	3,609	66 57
164	Plympton		335	104 76	1,269	1,805	37 98
165	Point Edward		855	77 00	3,940	1,993	.....
166	Port Colborne		No annual report for 1917				
167	Port Credit		944	148 21	2,738	3,228	48 84
168	Port Dover	R	1,150	144 88	1,617	2,146	39 18
169	Port Perry	R	1,200	403 92	2,383	4,162	76 63
170	Port Stanley		831	173 37	2,064	2,599	42 14
171	Powassan		600	101 67	440	898	41 49
172	Princeton		No annual report for 1917				
173	Queensville		400	125 11	2,958	1,879	42 07
174	Rainy River		1,385	126 11	846	.....	30 02
175	Ridgetown	R	2,000	225 00	4,098	5,446	83 04
176	Ripley		800	60 22	2,532	1,665	.....
177	Riversdale		400	34 64	1,503	1,758	18 62
178	Rodney		800	101 01	805	532	20 64
179	Romney		Rural	119 11	3,602	1,009	50 38
180	Runnymede		Rural	221 45	2,206	7,955	78 39
181	Russell	R	700	186 52	359	321	15 00

ASSOCIATION PUBLIC LIBRARIES—Concluded

Statistics, 1917, showing Legislative Grants paid in 1918

No.	Library	Reading Room	Population	Total Expenditure	Volumes in Library	Circulation	Legislative Grant paid in 1918
				$ c.			$ c.
182	St. George	R	700	234 40	5,284	1,510	36 56
183	St. Helen's	.....	Rural	102 38	2,239	1,588	26 82
184	Saltfleet	.....	Rural	158 89	2,356	3,091	58 72
185	Scarboro	.....	Rural	158 46	4,820	1,765	72 69
186	Scotland	R	400	100 47	1,887	1,403	49 56
187	Shedden	.....	350	118 05	2,119	1,465	30 13
188	Shetland	.....	250	125 49	779	575	63 69
189	Singhampton	.....	Rural	28 75	302	247	.....
190	Smithville	.....	600	242 91	949	2,618	15 00
191	Solina	.....	Rural	44 08	401	752	26 25
192	Southampton	.....	1,680	206 44	5,543	5,682	48 99
193	South Mountain	.....	420	37 70	1,200	1,075	.....
194	Sparta	.....	120	.....	2,569	.....	.....
195	Speedside	.....	260	64 46	1,578	634	24 43
196	Stevensville	.....	365	110 00	680	1,204	42 26
197	Strathcona	.....	550	67 33	1,575	612	13 12
198	Strathroy	R	2,816	632 67	9,003	22,418	114 32
199	Sydenham	R	200	214 73	1,726	2,540	45 45
200	Thamesford	.....	400	162 97	1,825	821	43 37
201	Thamesville	R	742	267 18	2,434	1,185	81 40
202	Thedford	.....	600	126 01	3,187	3,228	44 36
203	Thornbury	.....	No annual report for 1917				
204	Thorndale	.....	285	172 77	596	5,527	43 10
205	Tiverton	.....	350	72 60	1,034	1,189	11 45
206	Tottenham	.....	600	83 58	2,543	1,499	14 24
207	Trout Creek	.....	500	5 00	1,138	162	.....
208	Tweed	.....	1,400	234 03	2,101	6,426	43 27
209	Underwood	.....	216	144 96	2,689	2,146	49 14
210	Unionville	.....	550	95 26	1,622	1,597	33 84
211	Vankleek Hill	.....	No annual report for 1917				
212	Victoria	.....	Rural	107 91	3,674	3,254	47 35
213	Victoria Mines	.....	1,500	97 36	1,288	1,819	42 83
214	Victoria Road	.....	255	37 96	408	98	.....
215	Walton	.....	Rural	64 80	1,331	1,018	27 44
216	Wardsville	.....	206	113 95	2,028	2,357	37 13
217	Warkworth	.....	500	89 00	1,487	505	11 59
218	Waterdown	.....	722	266 43	601	2,702	.....
219	Welland	R	7,243	455 24	4,960	7,763	128 39
220	Wellesley	.....	600	44 77	2,588	2,568	10 00
221	Westford	.....	150	8 63	1,855	1,610	.....
222	West Lorne	.....	651	128 68	1,321	1,584	43 55
223	White Lake	.....	350	37 01	863	984	21 42
224	Wiarton	R	1,728	372 57	3,310	4,877	79 69
225	Williamstown	.....	Rural	34 25	2,358	994	10 00
226	Winchester	R	1,042	169 71	1,742	4,109	41 48
227	Woodville	R	386	279 65	2,605	904	83 25
228	Worthington	R	600	165 33	415	395	86 16
229	Zephyr	.....	400	100 37	1,388	1,642	31 31
	Total	.....	153,315	32,627 73	438,569	515,794	7,622 63

FREE PUBLIC LIBRARIES

Statistics, 1917, showing Legislative Grants paid in 1918

No.	Library	Reading Room	Population	Total Expenditure	Volumes in Library	Circulation	Legislative Grant paid in 1918
				$ c.			$ c.
1	Acton	.....	2,000	383 28	3,799	10,485	89 59
2	Ailsa Craig	.....	586	125 00	3,199	4,273	42 57
3	Amherstburg	.....	2,400	1,386 34	4,200	16,643	85 39
4	Arnprior	.....	4,300	298 58	3,722	4,175	102 70
5	Arthur	R	1,000	281 70	3,622	4,647	86 14
6	Aurora	.....	2,700	453 01	3,188	6,489	52 01
7	Aylmer	R	2,300	873 64	8,297	14,009	218 33
8	Ayr	R	780	528 89	3,896	6,385	115 49
9	Barrie	R	6,846	8,791 99	5,588	25,509	250 92
10	Beamsville	.....	1,019	441 00	5,069	8,743	90 81
11	Beeton	..	600	136 75	2,349	2,342	40 60
12	Belleville	R	12,080	3,318 89	8,716	34,115	260 00
13	Belmont		Free by vote of ratepayers Jan. 10th, 1918				
14	Bothwell	.....	650	230 70	2,909	4,503	62 95
15	Bracebridge	R	2,506	1,006 65	5,375	13,145	146 06
16	Brampton	R	4,160	1,388 68	7,586	22,155	243 31
17	Brantford	R	27,800	8,816 51	29,852	89,571	260 00
18	Brighton	R	1,315	253 93	3,968	2,973	48 57
19	Brockville	R	9,240	1,687 02	14,612	17,562	221 08
20	Brussels	R	1,200	470 07	4,185	4,989	91 19
21	Burk's Falls	R	1,000	426 63	3,065	3,180	105 85
22	Campbellford	R	3,200	1,051 53	3,475	15,598	105 71
23	Cardinal	R	1,111	148 70	2,692	3,241	35 60
24	Carleton Place	R	3,706	565 58	7,067	14,285	155 96
25	Cayuga	.....	800	168 14	1,867	1,218	26 78
26	Chatham	R	13,943	3,390 92	10,261	55,711	260 00
27	Chesley	R	1,860	449 17	3,737	5,288	116 99
28	Clifford	.....	600	158 60	4,240	4,303	37 04
29	Clinton	R	2,300	1,114 94	7,553	11,871	260 00
30	Collingwood	R	7,619	2,374 23	9,323	15,810	251 21
31	Cornwall	R	6,947	1,119 11	5,254	12,173	196 08
32	Delhi	R	900	310 11	2,307	3,126	93 49
33	Deseronto	R	2,061	310 04	6,748	8,196	83 64
34	Drayton	R	792	287 61	3,662	5,465	89 84
35	Dresden	R	1,500	724 47	1,823	5,574	39 03
36	Dundas	R	5,016	2,077 98	8,953	35,168	230 33
37	Durham	R	1,600	499 23	3,758	6,939	45 25
38	Elmira	R	2,200	664 32	4,855	7,703	176 10
39	Elora	R	1,005	928 41	8,307	7,871	103 15
40	Erin	.....	525	154 51	2,971	3,927	58 06
41	Essex	R	1,385	632 36	3,574	5,514	95 29
42	Exeter	R	1,502	848 52	5,186	8,329	99 83
43	Fergus	R	1,750	1,063 57	5,443	7,809	94 01
44	Forest	R	1,446	637 59	3,977	10,609	78 35
45	Fort Frances	R	2,950	912 68	2,648	10,114	93 30
46	Fort William	R	17,911	11,748 21	22,599	70,760	260 00
47	Galt	R	12,500	3,971 54	9,829	65,482	260 00
48	Gananoque	R	3,769	925 30	5,407	19,026	155 21
49	Garden Island	..	80	.....	5,000	.....	.....
50	Georgetown	R	2,000	658 59	3,629	10,155	85 26
51	Glencoe	.....	950	107 35	2,100	.....	10 00
52	Goderich	R	4,700	886 63	5,312	13,398	141 27
53	Grand Valley	R	576	487 02	3,116	5,296	112 53
54	Gravenhurst	.....	2,000	114 89	2,585	1,076	32 60
55	Grimsby	R	2,000	1,411 60	4,036	17,800	163 34
56	Guelph	R	16,308	4,934 35	18,397	69,407	260 00
57	Hagersville	R	1,200	387 56	2,037	1,487	125 67
58	Hamilton	R	100,461	44,241 66	46,932	447,625	260 00
59	Hamilton Branch	R	.....	.....	.....	.....	.....
60	Hanover	R	3,321	697 29	3,080	10,014	169 85
61	Harriston	R	1,490	868 94	3,665	17,293	137 23
62	Hensall	R	800	225 36	1,907	7,204	90 13

FREE PUBLIC LIBRARIES—Continued

Statistics, 1917, showing Legislative Grants paid in 1918

No.	Library	Reading Room	Population	Total Expenditure	Volumes in Library	Circulation	Legislative Grant paid in 1918
				$ c.			$ c.
63	Hespeler	R	2,999	512 55	4,720	9,423	101 07
64	Ingersoll	R	5,200	1,618 75	6,185	20,215	182 70
65	Kemptville	R	1,084	491 28	3,911	7,423	138 65
66	Kenora	R	5,319	1,741 36	5,287	17,145	133 00
67	Kincardine	R	2,306	490 88	4,447	4,729	70 78
68	Kingsville	R	1,700	467 61	3,169	8,237	93 45
69	Kintore	R	280	86 50	1,765	2,000	28 91
70	Kitchener	R	19,695	7,342 49	14,619	57,564	260 00
71	Lakefield	R	1,033	211 19	2,225	4,867	93 29
72	Lanark	.....	628	61 33	1,987	1,939	.....
73	Lancaster	.....	700	383 78	4,859	1,386	57 08
74	Leamington	R	3,652	1,314 44	5,430	21,791	253 42
75	Lindsay	R	7,500	1,984 84	7,010	24,321	241 91
76	Listowel	R	2,600	1,073 78	4,846	9,176	112 60
77	Little Britain	R	300	241 07	2,960	1,884	97 53
78	London	R	55,887	16,032 55	39,246	221,007	260 00
79	London Branch	R	.....	3,250 92	4,631	50,613	260 00
80	Lucknow	R	990	288 01	3,205	5,194	85 64
81	Markdale	R	1,000	660 89	3,441	6,573	61 04
82	Merrickville	.....	950	281 28	2,500	1,000	20 00
83	Merritton	.....	2,450	214 29	2,686	7,497	35 60
84	Midland	R	7,250	1,599 30	7,238	36,870	111 35
85	Millbrook	R	800	400 04	2,821	7,704	107 50
86	Milverton	R	940	705 56	2,585	3,021	121 10
87	Mimico	R	1,965	1,439 18	2,664	12,084	146 46
88	Mitchell	R	1,706	648 13	5,408	6,118	84 57
89	Mount Forest	R	2,500	530 19	4,078	21,822	61 22
90	New Hamburg	R	1,612	613 74	2,749	6,650	52 20
91	New Liskeard	R	2,000	1,455 42	3,949	9,528	124 02
92	Newmarket	R	3,600	658 51	4,589	8,021	130 59
93	Niagara Falls	R	12,000	4,944 05	14,588	54,140	260 00
94	North Bay	R	9,197	3,470 97	5,798	22,275	260 00
95	Norwich	.....	1,200	413 62	3,570	8,117	98 36
96	Oakwood	R	300	120 43	2,049	1,218	31 10
97	Orangeville	R	2,381	1,129 82	6,436	15,260	139 41
98	Orillia	R	8,854	1,900 96	6,872	22,410	253 12
99	Oshawa	R	9,051	1,711 15	5,216	18,403	209 93
100	Ottawa	R	101,549	28,986 43	59,980	256,699	260 00
101	Ottawa Branch, S.	R	.....	1,109 90	1,486	10,903	236 25
102	Ottawa Branch, W.	R	.....	1,390 84	3,225	19,119	241 28
103	Otterville	.....	500	165 70	2,126	3,783	66 92
104	Owen Sound	R	11,968	3,195 23	8,049	40,451	260 00
105	Paisley	R	745	325 68	5,458	7,919	85 87
106	Palmerston	R	2,200	627 44	2,844	7,875	44 63
107	Paris	R	4,383	1,281 39	11,378	18,928	245 82
108	Parkhill	R	1,500	734 21	2,467	2,029	66 87
109	Parry Sound	.....	4,500	556 89	3,326	4,878	101 30
110	Pembroke	R	7,721	2,331 03	5,187	20,476	260 00
111	Penetanguishene	R	4,000	947 12	6,359	10,695	137 32
112	Perth	R	3,800	1,162 08	4,214	15,924	93 81
113	Peterborough	R	20,598	6,294 24	14,222	56,025	260 00
114	Picton	R	3,500	1,579 87	7,224	21,334	260 00
115	Port Arthur	R	14,424	7,851 90	13,254	74,565	260 00
116	Port Carling	R	256	168 79	1,564	1,375	57 60
117	Port Elgin	R	1,500	641 33	4,984	12,575	58 64
118	Port Hope	R	4,586	1,357 14	6,998	17,137	141 67
119	Port Rowan	.....	750	.....	1,994	1,132	34 05
120	Prescott	R	2,820	545 66	6,588	12,099	106 60
121	Preston	R	5,000	2,527 49	8,480	21,014	172 34
122	Renfrew	R	6,611	949 51	3,393	12,368	123 31
123	Richmond Hill	R	930	317 16	4,354	5,486	61 52

FREE PUBLIC LIBRARIES—Concluded

Statistics, 1917, showing Legislative Grants paid in 1918

No.	Library	Reading Room	Population	Total Expenditure	Volumes in Library	Circulation	Legislative Grant paid in 1918
				$ c.			$ c.
124	Ridgeway	..	700	154 63	2,540	2,415	40 96
125	St. Catharines	R	19,078	6,327 85	9,989	48,453	260 00
126	St. Mary's	R	3,821	1,296 44	8,822	23,884	260 00
127	St. Thomas	R	17,216	5,229 06	15,780	62,037	260 00
128	Sarnia	R	12,323	4,306 23	11,928	45,475	260 00
129	Sault Ste. Marie	R	20,000	3,357 73	4,319	27,256	260 00
130	Schreiber	R	1,200	709 92	1,565	1,024	20 20
131	Seaforth	R	2,000	927 37	5,254	13,052	175 77
132	Shelburne	R	1,100	686 87	4,248	5,494	74 32
133	Simcoe	R	4,032	1,750 95	9,580	21,365	246 56
134	Smith's Falls	R	6,268	1,888 84	5,960	20,596	167 90
135	South River	...	580	91 35	1,103	1,362	22 87
136	Springfield	...	412	59 61	1,449	1,676	16 45
137	Stayner	...	.....	No annual report for 1917			.....
138	Stirling	R	850	621 67	2,067	4,911	87 91
139	Stouffville	R	1,020	408 38	5,770	10,304	108 60
140	Stratford	R	47,420	2,803 83	14,168	65 031	260 00
141	Streetsville	R	585	277 32	3,056	5,826	76 05
142	Sudbury	R	6,953	5,093 13	1,508	474	54 91
143	Sundridge	...	425	64 80	999	462	35 51
144	Sutton West	R	815	135 02	1,661	5,597	53 75
145	Tara	R	560	372 56	1,866	4,336	73 85
146	Tavistock	...	1,025	1,049 88	4,200	10,007	81 29
147	Teeswater	R	875	510 13	4,717	3,525	134 11
148	Thorold	R	4,548	1,141 66	6,309	7,768	32 92
149	Tilbury	...	1,706	.....	32	32	.....
150	Tillsonburg	R	3,200	1,354 44	4,324	21,318	221 13
151	Toronto, Beaches	R	473,829	8,892 48	8,268	110,113	230 00
152	" Church	R	.....	15,019 33	56,162	89,206	260 00
153	" College	R	.....	114,390 27	116,431	414,589	260 00
154	" Deer Park	R	.....	6,705 16	8,420	48,524	235 00
155	" Dovercourt	R	.....	15,254 81	15,369	222,734	260 00
156	" Earlscourt	R	.....	5,793 80	6,936	66,565	217 75
157	" Eastern	R	.....	8,103 92	3,775	19,617	205 00
158	" High Park	R	.....	24,187 57	8,834	138,547	230 00
159	" Municipal	R	.....	3,889 07	1,123	7,609	131 14
160	" Northern	R	.....	5,514 34	6,600	29,209	211 00
161	" Queen & Lisgar	R	.....	6,534 60	11,086	85,992	247 50
162	" Riverdale	R	.....	10,474 52	16,371	177,413	260 00
163	" Western	R	.....	7,525 00	11,319	91,609	245 00
164	" Wychwood	R	.....	6,210 72	8,452	80,192	213 00
165	" Yorkville	R	.....	5,321 76	12,816	69,641	250 00
166	Trenton	...	.....	No annual report for 1917			.....
167	Uxbridge	R	1,638	550 21	6,622	10,258	106 36
168	Walkerton	R	3,000	1,021 37	4,311	8,003	89 27
169	Walkerville	R	5,725	4,634 64	8,870	30,285	260 00
170	Wallaceburg	R	4,107	1,548 04	3,820	22,065	100 22
171	Waterford	..	1,050	72 30	1,170	1,350	.....
172	Waterloo	R	4,908	2,053 59	11,234	18,428	260 00
173	Watford	R	1,221	478 38	4,347	6,728	95 53
174	Weston	R	2,283	1,393 54	5,916	14,573	178 87
175	Whitby	R	3,400	1,070 78	3,497	14,116	135 59
176	Windsor	R	28,064	6,451 68	28,566	113,472	260 00
177	Wingham	R	2,474	928 20	6,279	8,810	244 08
178	Woodstock	R	10,027	3,209 72	11,252	49,635	260 00
179	Wroxeter	...	370	199 36	5,466	1,836	67 68
	Total		1,377,544	557,044 59	1,309,928	5,074,571	24,913 18

NOTES FROM PUBLIC LIBRARIES REGISTER

Five libraries were added to the list of Free Libraries: Belmont, Schreiber, Tilbury, South River, South Branch, London; all but the last mentioned were formerly Association libraries.

Three Association Libraries were organized: Agincourt, Capreol, and Moorefield. Two Association libraries were re-organized: Copper Cliff and Hawkesbury.

GRANTS TO HISTORICAL, LITERARY AND SCIENTIFIC INSTITUTIONS

The following Historical, Literary and Scientific Institutions, etc., duly reported according to the requirements of the Act, and received the undermentioned grants during the fiscal year ended October 31st, 1918:

Name of Institution	Grant Paid
	$ c.
Brant Historical Society	100 00
Elgin Historical and Scientific Association	100 00
Essex Historical Society	100 00
Huron Institute	100 00
Kent Historical Society	100 00
Kingston Historical Society	100 00
L'Alliance Française, Ottawa	300 00
Lennox and Addington Historical Society	100 00
Lundy's Lane Historical Society	200 00
London and Middlesex Historical Society	100 00
Niagara Historical Society	200 00
Ontario Historical Society	800 00
Thunder Bay Historical Society, Fort William	100 00
Wentworth Historical Society	200 00
Women's Canadian Historical Society of Ottawa	200 00
Women's Canadian Historical Society of Toronto	100 00
Women's Wentworth Historical Society	300 00
Hamilton Scientific Association	400 00
Canadian Institute	1,500 00
Club Litteraire Canadien Français, Ottawa	200 00
L'Institut Canadien Français, d'Ottawa	300 00
Ottawa Field Naturalists' Club	200 00
Royal Astronomical Society, Toronto	600 00
Society of Chemical Industry	200 00
Ontario Library Association	400 00
Reading Camp Association	2,500 00
St. Patrick's Literary Association of Ottawa	200 00
Canadian Free Library for the Blind	700 00
Waterloo Historical Society	100 00
United Empire Loyalists	200 00
York Pioneers	200 00
Ottawa Association for the Blind	1,000 00
Institut Jeanne D'Arc, Ottawa	100 00

APPENDIX I

STATISTICS OF PUBLIC, SEPARATE, CONTINUATION AND HIGH SCHOOLS

Summary

I. ELEMENTARY SCHOOLS

a. Public Schools

Number of Public Schools in 1917		6,103
Increase for the year	12	
Number of enrolled pupils of all ages in the Public Schools during the year (exclusive of Continuation and Night School pupils)		457,616
Increase for the year	456	
Average daily attendance of pupils		295,652
Increase for the year	3,047	
Percentage of average attendance to total attendance		64.59
Increase for the year	.31	
Number of persons employed as teachers in the Public Schools: men, 1,219; women, 10,055: total		11,274
Increase for the year	297	
Number of teachers who attended Normal School		8,509
Increase for the year	388	
Number of teachers who attended Normal College or Faculty of Education		1,006
Increase for the year	8	
Number of teachers with a University degree		130
Decrease for the year	16	
Average annual salary for male teachers		$1,039
Increase for the year	$82	
Average annual salary for female teachers		$650
Increase for the year	$24	
Average experience of male teachers		14.73 years
Average experience of female teachers		7.67 years
Amount expended for teachers' salaries		$7,763,361
Amount expended for Public School houses (sites and buildings)		$1,725,541
Amount expended for all other purposes		$3,309,210
Total amount expended for Public Schools		$12,798,112
Increase for the year	$689,536	
Cost per pupil (enrolled attendance)		$27.96
Increase for the year	$0.43	

b. Roman Catholic Separate Schools

Number of Roman Catholic Separate Schools in 1917..		548
Increase for the year	9	
Number of enrolled pupils of all ages		70,048
Increase for the year	783	
Average daily attendance of pupils		46,919
Increase for the year	722	
Percentage of average attendance to total attendance ..		66.98
Increase for the year	.29	
Number of teachers		1,488
Increase for the year	34	
Amount expended for teachers' salaries		$635,089
Amount expended for school houses (sites and buildings)		$262,103
Amount expended for all other purposes		$416,531
Total amount expended on R. C. Separate Schools		$1,313,723
Increase for the year	$70,394	
Cost per pupil (enrolled attendance)		$18.75
Increase for the year	$0.80	

c. Protestant Separate Schools

Number of Protestant Separate Schools (included with Public Schools, *a*) in 1917		6
Number of enrolled pupils		447
Increase for the year	32	
Average daily attendance of pupils		299
Increase for the year	20	

d. Night Public Schools

Number of Night Schools in 1917-18		13
Decrease for the year	4	
Number of pupils enrolled		320
Decrease for the year	365	
Number of teachers engaged		26
Decrease for the year	8	

II. SECONDARY SCHOOLS

a. High Schools and Collegiate Institutes

Number of High Schools (including 47 Collegiate Institutes) 1917-18		162
Number of pupils enrolled in High Schools		29,097
Increase for the year	264	
Average daily attendance of pupils		22,740
Decrease for the year	41	
Percentage of average to total attendance		78.15
Decrease for the year	.86	
Number of teachers in High Schools		1,051
Increase for the year	13	
Average annual salary, Principals		$1,884
Increase for the year	$45	
Average annual salary, Assistants		$1,412
Increase for the year	$36	
Average annual salary, all Teachers		$1,484
Increase for the year	$36	
Highest salary paid		$3,500
Amount expended for teachers' salaries 1917		$1,554,049
Amount expended for school houses (sites and buildings)		$277,544
Amount expended for all other purposes		$587,382
Total amount expended on High Schools, 1917		$2,418,975
Decrease for the year	$69,279	
Cost per pupil, enrolled attendance (approximate)		$83.00
Decrease for the year	$3.00	

b. Continuation Schools

Number of Continuation Schools, 1917-18		137
Increase for the year	5	
Number of pupils in attendance		5,104
Increase for the year	22	
Average daily attendance of pupils		3,734
Increase for the year	5	
Percentage of average to total attendance		73.15
Decrease for the year	.22	
Number of teachers		241
Increase for the year	7	
Average annual salary, Principals		$1,117
Increase for the year	$24	
Average annual salary, Assistants		$778
Increase for the year	$21	
Highest salary paid		$2,000
Amount expended on teachers' salaries, 1917		$228,362
Amount expended for school houses (sites and buildings)		$32,328
Amount expended for all other purposes		$63,931
Total amount expended on Continuation Schools, 1917		$324,621
Increase for the year	$18,473	
Cost per pupil, enrolled attendance (approximate)		$63.00
Increase for the year	$3.00	

c. Night High Schools

Number of Night Schools in 1917-18		23
Increase for the year	9	
Number of pupils enrolled		3,927
Increase for the year	460	
Number of teachers engaged		151
Increase for the year	32	

III. GENERAL

Elementary and Secondary Schools

*Total population of the Province	2,652,000
Pupils enrolled in elementary schools, 1917	528,484
Pupils enrolled in secondary schools, 1917-18	38,128
Total enrolment, all schools	566,612
Average daily attendance	369,516
Percentage of total population enrolled	21
Total expenditure	$16,855,431
Average cost per head of total population in 1917	$6.35

Average cost per pupil (enrolled attendance) in all Schools

	1902	1907	1912	1916	1917
Teachers' salaries	$7 63	$10 44	$14 26	$17 10	$17 97
Sites and buildings	0 97	2 86	5 90	4 70	4 05
All other expenses	2 80	4 40	5 34	6 77	7 72
For all purposes	11 40	17 70	25 50	28 57	29 74

Average Cost per Pupil (average attendance) in all Schools

	1902	1907	1912	1916	1917
Teachers' salaries	$13 34	$17 78	$23 26	$26 36	$27 55
Sites and buildings	1 70	4 86	9 63	7 24	6 22
All other expenses	4 89	7 50	8 71	10 44	11 84
For all purposes	19 93	30 14	41 60	44 04	45 61

*Estimated

Comparative School Statistics, 1867-1917

I. PUBLIC AND SEPARATE SCHOOLS

These tables, 1, 2, 3, 4 and 5, for the purpose of comparison with previous years in which the Separate Schools were included with Public Schools, include Roman Catholic and Protestant Separate Schools. The tables A, B, C, D and E give the statistics of the Public Schools including Protestant Separate Schools; the statistics of the R. C. Separate Schools are given in Tables F and G; those of the Protestant Separate Schools appear in Table N; and the Night Schools in Table O.

1. School Population and Attendance

The school population (5 to 16 and 5 to 21 years) of the Province, as ascertained by the assessors, and the school attendance are given in the following table:

Year	Population 5 to 16 years	Population 5 to 21 years	Total number of enrolled pupils	Boys	Girls	Average daily attendance	Percentage of average attendance to total number attending school
1867	447,726	.....	401,643	213,019	188,624	163,974	40.82
1872	495,756	.....	454,662	238,848	215,814	188,701	41.50
1877	494,804	.....	490,860	261,070	229,790	217,184	44.25
1882	483,817	.....	471,512	246,966	224,546	214,176	45.42
1887	.....	611,212	493,212	259,083	234,129	245,152	49.71
1892	.....	595,238	485,670	253,091	232,579	253,830	52.26
1897	.....	590,955	482,777	251,677	231,100	273,544	56.66
1902	.....	584,512	454,088	232,880	221,208	261,480	57.58
1907	.....	590,285	448,218	229,794	218,424	266,503	59.45
1912	.....	609,127	467,022	239,187	227,835	291,210	62.35
1916	511,324	632,527	508,975	259,358	249,617	328,846	64.61
1917	512,562	628,996	527,664	266,255	261,409	342,571	64.92

NOTE.—Continuation School attendance is excluded from the above table in 1912 and thereafter. Kindergarten attendance is not included except for the year 1917. There was a total increase of 1,239 for the year in these elementary schools.

2. Classification of Pupils

Year	Kindergarten	Kindergarten-Primary	1st Reader, Part I, or Primer	1st Reader, Part II, or 1st Book	2nd Book	3rd Book	4th Book	5th Book, or beyond 4th Book
1867	.....	.....	.....	* 79,365	98,184	83,211	68,896	71,987
1872	.....	.....	.....	*160,828	100,245	96,481	67,440	29,668
1877	.....	.....	.....	*153,630	108,678	135,824	72,871	19,857
1882	.....	.....	.....	*165,834	106,229	117,352	71,740	10,357
1887	.....	.....	115,657	76,704	100,533	108,096	81,984	10,238
1892	.....	.....	114,932	73,015	96,074	99,345	88,934	13,370
1897	.....	.....	110,567	70,808	91,330	99,682	89,314	21,076
1902	.....	.....	107,441	69,062	85,732	90,630	83,738	17,485
1907	.....	.....	112,552	60,194	84,622	89,371	85,752	15,727
1912	.....	.....	126,100	67,368	92,728	88,811	85,213	† 6,802
1916	17,450	.....	128,748	73,208	106,201	102,270	91,824	† 6,724
1917	16,515	2,793	125,321	73,996	106,034	105,062	91,989	† 5,954

The following table classifies the pupils in the various forms, as to rural and urban schools:

Year	Kindergarten	Kindergarten-Primary	First Reader Part I or Primer	First Reader Part II or First Book	Second Book	Third Book	Fourth Book	Fifth Book or beyond Fourth Book	Totals
Rural Schools									
1904	.....	.....	60,784	36,941	47,930	50,297	47,289	9,892	253,133
1907	.....	.....	60,470	31,538	46,219	48,247	46,815	8,958	242,247
1912	.....	.....	62,712	30,293	43,775	42,450	44,049	†3,984	227,263
1916	.....	.....	60,360	31,630	45,712	44,457	42,388	†3,182	227,729
1917	.....	75	58,290	30,657	44,407	43,834	41,321	†2,926	221,510
Urban Schools (cities, towns and incorporated villages)									
1904	.....	.....	44,456	27,800	37,299	39,814	35,815	6,304	191,488
1907	.....	.....	52,082	28,656	38,403	41,124	38,937	6,769	205,971
1912	.....	.....	63,388	37,075	48,953	46,361	41,164	†2,818	239,759
1916	17,450	.....	68,388	41,578	60,489	57,813	49,436	†3,542	298,696
1917	16,515	2,718	67,031	43,339	61,627	61,228	50,668	†3,028	306,154

* In 1st Reader. † Exclusive of Continuation School pupils.

The following table compares the attendance and gives the percentages from rural and from urban municipalities for several years:

Year	Attendance in Rural Schools	Attendance in Urban Schools
1903	260,617 or 57.88% of total	189,661 or 42.12% of total
1907	242,247 or 54.05% "	205,971 or 45.95% "
1912	227,263 or 48.66% "	239,759 or 51.33% "
1916	227,729 or 43.25% "	298,696 or 56.74% "
1917	221,510 or 41.97% "	306,154 or 58.02% "

NOTE.—Kindergarten attendance for years previous to 1916 not available for the above tables. The first Kindergarten returns received were for the year 1892.

3. Teachers' Certificates

Year	Number of teachers	Male	Female	1st Class	2nd Class	3rd Class	Kindergarten-Primary	Kindergarten	Other certificates, including old County Board, Dist. and Temp.	Number of teachers who attended Normal School	*Normal College or Faculty of Education
1867.....	4,890	2,849	2,041	1,899	2,454	386	....	....	151	666	.....
1872.....	5,476	2,626	2,850	1,337	1,477	2,084	....	....	578	828	.....
1877.....	6,468	3,020	3,448	250	1,304	3,926	....	....	988	1,084	.....
1882.....	6,857	3,062	3,795	246	2,169	3,471	....	....	971	1,873	.....
1887.....	7,594	2,718	4,876	252	2,553	3,865	....	....	924	2,434	.....
1892.....	8,680	2,770	5,910	261	3,047	4,299	....	200	873	3,038	.....
1897.....	9,351	2,784	6,567	343	3,386	4,465	....	223	934	3,643	.....
1902.....	9,614	2,294	7,320	608	4,296	3,432	....	247	1,031	4,774	.....
1907.....	10,170	1,783	8,387	715	3,887	3,452	....	277	1,839	4,587	.....
†1912.....	11,128	1,511	9,617	674	6,419	1,804	....	371	1,860	6,705	614
†1916.....	12,465	1,386	11,079	1,084	8,559	1,346	....	371	1,105	8,789	1,042
†1917.....	12,762	1,317	11,445	1,106	8,784	1,317	66	310	1,108	9,203	1,053

NOTE.—33 Manual Training and 38 Household Science teachers are included in above table for the year 1917.

The men engaged in teaching in these schools in 1917 formed 10.31 per cent. of the whole number.

The number of teachers and the class of certificates, in the Public Schools alone, in each County and District of the Province will be found in Table C of this Appendix.

The following table classifies the teachers and certificates as to rural and urban schools:

	Teachers			Certificates		
	Total	Male	Female	1st Class	2nd Class	3rd Class
Rural Schools, 1904	5,974	1,469	4,505	152	1,944	3,107
Rural Schools, 1907	6,038	1,201	4,837	180	1,542	3,079
†Rural Schools, 1912	6,143	894	5,249	165	3,002	1,463
†Rural Schools, 1916	6,409	731	5,678	346	4,161	1,150
†Rural Schools, 1917	6,455	655	5,800	343	4,232	1,129
Urban (cities, towns and incorporated villages), 1904	3,580	606	2,974	483	2,248	289
Urban, 1907	4,132	582	3,550	535	2,345	373
†Urban, 1912	4,985	617	4,368	509	3,417	341
†Urban, 1916	6,056	655	5,401	738	4,398	196
†Urban, 1917	6,307	662	5,645	763	4,552	188

* For the years previous to 1912 the numbers who attended Normal College or the Faculty of Education are included in the preceding column.

† Exclusive of Continuation School teachers.

4. Teachers' Salaries and Experience

Teachers' Salaries

Year	Highest salary paid	Average salary, male teacher, province	Average salary, female teacher, province	Average salary, male teacher, cities	Average salary, female teacher, cities	Average salary, male teacher, towns	Average salary, female teacher, towns	Average salary, male teacher, incorporated villages	Average salary, female teacher, incorporated villages	*Average salary, male teacher, rural schools	*Average salary, female teacher, rural schools	Average salary, male teacher, all urban schools	Average salary, female teacher, all urban schools.
	$	$	$	$	$	$	$	$	$	$	$	$	$
1867.	1,350	346	226	532	243	464	240	.....	.....	261	189	.....	.....
1872.	1,000	360	228	628	245	507	216	.....	.....	305	213	.....	.....
1877.	1,100	398	264	735	307	583	269	.....	.....	379	251	.....	.....
1882.	1,100	415	269	742	331	576	273	.....	.....	385	248	.....	.....
1887.	1,450	425	292	832	382	619	289	.....	.....	398	271	.....	.....
1892.	1,500	421	297	894	402	648	298	.....	.....	383	269	.....	.....
1897.	1,500	391	294	892	425	621	306	.....	.....	347	254	.....	.....
1902.	1,600	436	313	935	479	667	317	.....	.....	372	271	.....	.....
1907.	1,900	596	420	1,157	592	800	406	659	372	458	379	907	453
1912.	2,200	788	543	1,320	703	977	519	779	492	566	493	1,141	618
1916.	2,400	957	626	1,535	789	1,115	603	855	549	654	561	1,334	710
1917.	2,500	1,039	650	1,637	795	1,166	628	908	573	686	580	1,425	731

*Incorporated villages included from 1867 to 1902 inclusive.

Increase in salaries in the cities, towns, villages and rural schools are shown in the above table. In Table C the average salaries for 1917 of the Public School teachers of the various Counties and Districts are given separately, and summarized for the cities, towns and villages. This table also states the salaries paid to teachers according to the grade of certificate held, and illustrates to what extent the teacher with the higher certificate commands the higher salary. The average salaries for the Province are as follows:

	Male			Female		
	1912	1916	1917	1912	1916	1917
First Class certificates	$1,340	$1,434	$1,548	$634	$681	$728
Second Class certificates	757	874	916	587	654	673
Third Class and District certificates	524	541	562	458	483	507

Teachers' Experience

The length of service or experience of the teachers engaged in the Public Schools is also shown in Table C, where the numbers who have taught from less than one year up to forty years and over are given for each year, and where the experience of the teachers, according to the grade of certificate held, is given.

The average experience in the Public Schools at the end of 1917 was as follows:

Male teachers, 14.73 years.
Female teachers, 7.67 years.
All teachers, 8.44 years.

5. Receipts and Expenditures

Year	Receipts				Expenditures					
	Legislative grants	Municipal school grants and assessments	Clergy reserve funds, balances and other sources	Total receipts	Teachers' salaries	Sites and building school houses	Libraries, maps, apparatus, prizes, etc.	Rent, repairs, fuel and other expenses	Total expenditure	Cost per pupil
	$	$	$	$	$	$	$	$	$	$ c.
1867.	187,153	1,151,583	331,599	1,670,335	1,093,517	149,195	31,354	199,123	1,473,189	3 67
1872.	225,318	1,763,492	541,460	2,530,270	1,371,594	456,043	47,799	331,928	2,207,364	4 85
1877.	251,962	2,422,432	730,687	3,405,081	2,038,099	477,393	47,539	510,458	3,073,489	6 26
1882.	265,738	2,447,214	757,038	3,469,990	2,144,449	341,918	15,583	525,025	3,026,975	6 42
1887.	268,722	3,084,352	978,283	4,331,357	2,458,540	544,520	27,509	711,535	3,742,104	7 59
1892.	283,791	3,300,512	1,227,596	4,811,899	2,752,629	427,321	40,003	833,965	4,053,918	8 40
1897.	366,538	3,361,562	1,260,055	4,988,155	2,886,061	391,689	60,585	877,335	4,215,670	8 73
1902.	383,666	3,959,912	1,422,924	5,766,502	3,198,132	432,753	86,723	1,107,552	4,825,160	10 62
1907.	655,239	6,146,825	2,455,864	9,257,928	4,389,524	1,220,820	213,096	1,732,739	7,556,179	16 85
1912.	842,278	9,478,887	3,936,887	14,258,052	6,109,547	2,777,960	167,755	2,218,698	11,273,960	24 14
1916.	831,988	11,010,356	4,237,738	16,080,082	7,929,490	2,232,110	192,212	2,998,093	13,351,905	26 23
1917.	907,846	12,193,439	4,168,000	17,269,285	8,398,450	1,987,644	290,207	3,435,534	14,111,835	26 74

The increase for the year in the amount paid as teachers' salaries was $468,960. The total expenditure increased by $759,930.

These tables show the expenditure per pupil for the years as given below:

Average cost per pupil (enrolled attendance)

	1902	1907	1912	1916	1917
Teachers' salaries	$7.04	$9.79	$13.08	$15.58	$15.91
Sites and buildings	0.95	2.72	5.95	4.38	3.77
All other expenses	2.63	4.34	5.11	6.27	7.06
For all purposes	10.62	16.85	24.14	26.23	26.74

Average cost per pupil (average attendance)

	1902	1907	1912	1916	1917
Teachers' Salaries	$12.23	$16.47	$20.98	$24.11	$24.52
Sites and buildings	1.65	4.58	9.54	6.79	5.80
All other expenses	4.57	7.30	8.19	9.70	10.87
For all purposes	18.45	28.35	38.71	40.60	41.19

The expenditure per pupil (enrolled attendance) for 1917 in the Public Schools alone will be found in Table E, and for the R. C. Separate Schools in Table F. The expenditure will there be shown as to rural schools, cities, towns, and villages separately.

II. ROMAN CATHOLIC SEPARATE SCHOOLS

Schools, Teachers and Attendance

Year	Schools open	Teachers	Pupils	Boys	Girls	Average daily attendance	Percentage of average attendance to total number attending school
1867	161	210	18,924	.....	.....	8,606	45.47
1872	171	254	21,406	.....	.....	10,584	49.44
1877	185	334	24,952	.....	.....	12,549	50.29
1882	190	390	26,148	.....	.....	13,574	51.91
1887	229	491	30,373	15,376	14,997	16,866	55.52
1892	312	662	37,466	19,169	18,297	21,560	57.54
1897	340	752	41,620	21,342	20,278	24,996	60.05
1902	391	870	45,964	23,314	22,650	28,817	62.69
1907	449	1,034	51,502	26,420	25,082	33,500	65.04
1912	513	1,237	61,297	31,126	30,171	39,735	64.82
1916	539	1,454	69,265	35,410	33,855	46,196	66.69
1917	548	1,488	70,048	35,036	35,012	46,919	66.98

Receipts and Expenditures

Year	Receipts				Expenditures					
	Legislative grants	Municipal school grants and assessments	Balances, subscribed and other sources	Total receipts	Teachers' salaries	Sites and building school houses	Libraries, maps, apparatus, prizes, etc.	All other purposes	Total expenditure	Cost per pupil
	$	$	$	$	$	$	$	$	$	$ c.
1867..	9,993	26,781	11,854	48,628	34,830	.....	.....	+7,889	42,719	2 26
1872..	12,327	41,134	15,349	68,810	45,824	.....	.....	†15,993	61,817	2 88
1877..	13,607	72,177	34,482	120,266	70,201	24,510	2,811	17,284	114,806	4 60
1882..	14,382	97,252	55,105	166,739	84,095	36,860	1,303	32,082	154,340	5 13
1887..	16,808	147,639	65,401	229,848	112,293	48,937	3,624	46,369	211,223	6 95
1892..	21,043	206,698	98,293	326,034	149,707	65,874	2,922	71,335	289,838	7 74
1897..	26,675	224,617	84,032	335,324	168,800	41,233	5,786	86,350	302,169	7 26
1902..	30,472	293,348	161,683	485,503	210,199	100,911	6,158	118,173	435,441	9 47
1907..	40,524	442,316	308,540	791,380	281,484	186,908	15,991	229,793	714,176	13 86
1912..	51,846	757,255	377,713	1,186,814	456,800	308,193	15,207	263,024	1,043,224	17 01
1916..	45,836	899,938	467,759	1,413,533	535,661	395,289	17,709	294,670	1,243,329	17 95
1917..	63,127	1,066,253	370,346	1,499,726	635,089	262,103	24,836	391,695	1,313,723	18.75

†Including all expenditure except for Teachers' salaries.

An increase of 783 in the enrolment and of $70,394 in the expenditure in 1917 are noticed in the above tables. The expenditure per pupil of enrolled attendance increased from $17.95 to $18.75. Detailed statistics in reference to these schools will be found in Table F and G.

III. PROTESTANT SEPARATE SCHOOLS

The following is a complete list of the Protestant Separate Schools of the Province:—No. 4 Grattan, No. 2 Hagarty, No. 1 Tilbury North, L'Orignal, and Penetanguishene (two schools).

They were attended by 447 pupils in 1917. The whole amount expended for their maintenance and permanent improvements was $11,318.66. One teacher held a First Class certificate, nine teachers held Second Class, and two held Third Class certificates.

Complete statistics for these schools will be found in Table N.

IV. CONTINUATION SCHOOLS

The following table gives statistics of the "Continuation Classes, Grade A," up to and including 1907. Thereafter they are known as "Continuation Schools." Formerly the statistics of these schools were included with the statistics of the Public and Separate Schools, consequently certain items for the years 1897-1907 cannot be given.

Year	Schools	One-teacher schools	Two-teacher schools	Three-teacher schools	Number of teachers	Receipts		Expenditure		Total value of Equipment	No. of Pupils	Percentage of average attendance to total attendance
						Legislative grant	Total Receipts	Paid for Teachers' Salaries	Total Expenditure			
						$	$	$	$	$		
1897.....	27	20	7	....	34	2,700	.....	.....	.....	.....	1,275	.....
1902.....	59	46	12	1	73	8,350	.....	.....	.....	.....	1,856	.....
1907.....	91	65	24	2	119	25,610	.....	73,325	.....	26,345	3,993	.....
1912.....	138	54	73	11	226	64,081	295,261	202,875	265,087	75,556	6,094	61.97
1916.....	132	33	96	3	*234	64,753	337,852	224,464	306,148	87,901	*5,082	*73.37
1917.....	137	36	99	2	*241	65,733	360,431	228,362	324,621	93,228	*5,104	*73.15

*For school year ended six months after the calendar year specified.

Of the enrolled attendance for 1917-1918, 3,858 pupils were in the Lower School and 1,246 in the Middle School. The total attendance was made up of 1,989 boys and 3,115 girls.

Average Cost per pupil, enrolled attendance (approximate)

	1916	1917
Teachers' salaries	$44.17	$44.74
Sites and buildings	4.94	6.33
All other expenses	11.13	12.53
For all purposes	60.24	63.60

Average Cost per pupil (average attendance)

	1912	1915	1916	1917
Teachers' salaries	$53.71	$51.39	$60.19	$61.15
Sites and buildings	4.17	8.68	6.73	8.66
All other purposes	12.30	12.64	15.17	17.12
For all purposes	70.18	72.71	82.09	86.93

Statistics in detail for 1917 in reference to the Continuation Schools will be found in Tables H, I and J.

V. COLLEGIATE INSTITUTES AND HIGH SCHOOLS

The following table gives comparative statistics respecting Collegiate Institutes and High Schools from 1867 to 1917, inclusive:—

1. Receipts, Expenditure, Attendance, etc.

Year	Schools	Teachers	Receipts			Expenditure			Pupils	Percentage of average attendance to total attendance
			Legislative grant	Amount of fees	Total receipts	Paid for teachers' salaries	Paid for sites and buildings	Total expenditure		
			$	$	$	$	$	$		
1867	102	159	54,562	15,605	139,579	94,820	*19,190	124,181	5,696	55
1872	104	239	79,543	20,270	223,269	141,812	*31,360	210,005	7,968	56
1877	104	280	78,762	20,753	357,521	211,607	*51,417	343,710	9,229	56
1882	104	332	84,304	29,270	373,150	253,864	*19,361	343,720	12,348	53
1887	112	398	91,977	56,198	529,323	327,452	*73,061	495,612	17,459	59
1892	128	522	100,000	97,273	793,812	472,029	*91,108	696,114	22,837	60
1897	130	579	101,250	110,859	767,487	532,837	*46,627	715,976	24,390	61
1902	134	593	112,650	105,801	832,853	547,402	44,246	769,680	24,472	58.97
1907	143	750	158,549	138,396	1,611,553	783,782	193,975	1,213,697	30,331	60.94
1912	148	917	209,956	145,685	2,414,128	1,232,537	327,982	1,953,061	32,273	62.80
1916	160	†1038	185,245	160,755	3,043,075	1,509,227	398,791	2,488,254	†28,833	†79.01
1917	162	†1051	184,088	154,825	3,051,684	1,554,049	277,544	2,418,975	†29,097	†78.15

*Expenses for repairs, etc., included.
†For the school year ended six months after the calendar year specified.

Average cost per pupil, enrolled attendance (approximate)

	1916	1917
Teachers' salaries	$52.34	$53.41
Sites and buildings	13.83	9.54
All other expenses	20.12	20.18
For all purposes	86.29	83.13

Average cost per pupil (average attendance)

	1902	1907	1912	1916	1917
	$ c.	$ c.	$ c.	$ c.	$ c.
Teachers' salaries	37 93	42 40	60 81	66 25	68 34
Sites and buildings	3 07	10 49	16 18	17 50	12 20
All other purposes	12 34	12 76	19 37	25 47	25 83
For all purposes	53 34	65 65	96 36	109 22	106 37

Number of Pupils in the three grades of schools in the Collegiate Institutes and High Schools

	1916–17	1917–18
Lower School	20,185	20,190
Middle School	7,105	7,336
Upper School	1,543	1,571
Total enrolment	28,833	29,097
Total number of boys	12,339	12,353
Total number of girls	16,494	16,744

2. Occupation of Parents of Pupils attending High Schools and Collegiate Institutes

	1916–17	1917–18
Commerce	6,300	6,516
Agriculture	8,492	8,449
Law, Medicine or the Church	1,498	1,531
Teaching	471	511
The Trades	5,610	5,734
Labouring Occupations	2,257	1,899
Other Classes	4,205	4,457

3. Destination of Pupils, and Number of Schools Charging Fees

Year	Destination of Pupils					Number of schools charging fees	Number of free schools
	Mercantile life	Agriculture	Law, Medicine or the Church	Teaching	The Trades		
1867	.....	.....	.....	.....	.....	67	36
1872	486	300	213	.....	.....	28	76
1877	555	328	564	.....	.....	35	69
1882	881	646	751	.....	.....	37	67
1887	1,141	882	1,189	.....	.....	58	54
1892	1,111	1,006	398	1,527	.....	77	51
1897	1,368	1,133	409	2,056	.....	87	43
1902	1,573	743	388	1,238	.....	82	52
1907	1,982	803	401	1,436	.....	81	62
1912	2,178	855	370	1,490	531	82	66
1916	2,725	1,335	413	1,205	775	84	76
1917	2,742	1,557	339	1,407	667	85	77

The statistics in detail of the various Collegiate Institutes and High Schools of the Province for 1917, will be found in Tables K, L, and M.

VI. TEACHERS' INSTITUTES

This table presents the work of the Teachers' Institutes for forty-one years:

Year	No. of Teachers' Institutes	No. of Members	No. of Teachers in the Province. (High School teachers not included)	Receipts: Amount received from government grants	Receipts: Amount received from municipal grants	Receipts: Amount received from members' fees	Receipts: Total amount received	Expenditure: Amount paid for Libraries	Expenditure: Total amount expended
				$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
1877....	42	1,181	6,468	1,412 50	100 00	299 75	2,769 44	.....	1,127 63
1882....	62	4,395	6,857	2,900 00	300 00	1,088 84	9,394 28	453 02	5,355 33
1887....	66	6,781	7,594	1,800 00	1,879 45	730 66	10,405 95	1,234 08	4,975 50
1892....	69	8,142	8,680	1,950 00	2,105 00	875 76	12,043 54	1,472 41	6,127 46
1897....	73	7,627	9,351	2,425 00	2,017 45	901 15	12,446 20	1,479 88	6,598 84
1902....	77	8,515	9,614	2,515 00	1,877 50	1,171 80	13,171 26	1,437 18	7,188 45
1907....	81	9,319	10,170	2,850 00	1,920 00	1,671 52	14,824 09	654 16	7,487 41
1912....	83	*9,913	11,128	3,800 00	2,100 78	1,961 10	22,120 70	1,359 24	10,120 89
1916....	88	*12,729	12,465	5,875 00	3,596 31	3,107 97	31,847 73	3,314 52	20,469 44
1917....	94	*12,460	12,762	5,475 00	3,701 62	3,821 23	27,712 01	3,173 12	13,977 20

*Registered attendance of members.

See Appendix H for details for 1917.

VII. DEPARTMENTAL EXAMINATIONS, Etc.

1. Table showing the Number of Teachers in Training at Provincial Normal Schools, and the Pupils at the Normal Model Schools in connection therewith, etc., 1877-1918

Year	No. of Normal School teachers	No. of Normal School students	No. of Normal Model School and Kindergarten teachers	No. of Normal Model School and Kindergarten pupils
1877.....	13	257	8	643
1882.....	16	260	15	799
1887.....	13	441	18	763
1892.....	12	428	22	842
1897.....	13	407	23	832
1902.....	16	619	31	958
1907-08...	*35	428	*38	979 (1907)
1912-13...	*69	986	*38	914 (1912)
1916-17...	*78	1,293	*43	971 (1916)
1917-18...	*78	1,514	*43	938 (1917)
1918-19...	*76	1,100	*41	929 (1918)

*Including those engaged in both a Normal and a Normal Model School.

2. High School Entrance Examinations, 1877-1918

Year	Total number of Candidates examined and recommended by Principals	Number granted certificates	Percentage	Certificates granted under Regulations in reference to farm employment
1877	7,383	3,836	51.95	.....
1882	9,607	4,371	45.49	.....
1887	16,248	9,364	57.63	.....
1892	16,409	8,427	51.35	.....
1897	16,384	10,502	64.09	.....
1902	18,087	13,300	73.53	.....
1907	22,144	15,430	69.68	.....
1912	22,679	13,977	61.62	.....
1916	23,135	15,357	66.37	1,140
1917	21,975	15,751	71.67	2,711
1918	21,178	16,734	79.01	3,366

3. Departmental Academic and Matriculation Examinations, 1918

Examinations	Total number of Candidates	Number passed	Number of Appeals	Number passed on appeal	Total number passed	Percentage
Senior Public School Graduation	43	16	2	0	16	37.20
Senior High School Entrance	63	28	1	1	29	46.03
Model Entrance (June)	51	17	1	0	17	33.33
English-French Model Entrance (June)	80	54	0	0	54	67.50
Model Entrance (August)	71	43	1	1	44	61.97
English-French Model Entrance (August)	2	2	0	0	2	100.00
Lower School	3,372	1,492	50	3	1,495	44.33
Middle School (June)	2,277	1,243	42	2	1,245	54.67
Middle School (August)	25	13	1	0	13	52.00
Upper School, Part I	322	225	8	0	225	69.87
Upper School, Part II	263	229	7	1	230	87.45
Upper School, Parts A, B, C, D (June)	39	22	0	0	22	56.41
Upper School, Parts A, B, C, D (August)	64	44	1	0	44	68.75
Junior Matriculation	2,397	*1,504	46	5	1,509	62.95
Supplemental Matriculation	329	84	16	1	85	25.83
Totals	9,398	5,016	176	14	5,030	53.52

Number of Honour Matriculation Candidates 407
Number of Scholarship Matriculation Candidates 102

The number of candidates granted standing under Regulations re Enlistment for Overseas Service was 82, and re Farm Employment, 3,193.

*Obtained either complete or partial Junior Matriculation.

THE PUBLIC SCHOOLS

I. TABLE A—SCHOOL ATTENDANCE

Rural Schools	Pupils under 5 years of age	Pupils between 5 and 21 years of age	Pupils over 21 years of age	Total number of pupils attending school	Boys	Girls	Average daily attendance of pupils	Percentage of average to total attendance
1 Brant	3	3,562	....	3,565	1,814	1,751	2,299	64
2 Bruce	3	5,552	....	5,555	2,885	2,670	3,495	62
3 Carleton	7	5,747	....	5,754	2,866	2,888	3,354	58
4 Dufferin	12	2,438	....	2,450	1,296	1,154	1,425	58
5 Dundas	10	2,665	2	2,677	1,420	1,257	1,689	63
6 Elgin	13	4,120	....	4,133	2,113	2,020	2,541	61
7 Essex	5	5,469	....	5,474	2,870	2,604	3,142	57
8 Frontenac	12	4,189	1	4,202	2,086	2,116	2,159	51
9 Glengarry	9	2,940	1	2,950	1,505	1,445	1,556	52
10 Grey	5	7,206	1	7,212	3,748	3,464	4,214	58
11 Haldimand	1	2,494	....	2,495	1,313	1,182	1,663	67
12 Haliburton	3	1,504	2	1,509	757	752	711	47
13 Halton	1	2,155	....	2,156	1,103	1,053	1,244	58
14 Hastings	9	6,302	....	6,311	3,205	3,106	3,778	60
15 Huron	3	6,095	....	6,098	3,194	2,904	3,888	64
16 Kent	3	5,989	....	5,992	3,073	2,919	3,528	59
17 Lambton	4	5,179	....	5,183	2,742	2,441	3,325	64
18 Lanark	2	2,854	....	2,856	1,400	1,456	1,764	62
19 Leeds and Grenville	17	5,620	....	5,637	2,816	2,821	3,367	59
20 Lennox and Addington	10	3,135	....	3,145	1,582	1,563	1,729	55
21 Lincoln	9	3,165	....	3,174	1,580	1,594	1,703	54
22 Middlesex	4	6,580	....	6,584	3,390	3,194	4,369	66
23 Norfolk	2	3,520	....	3,522	1,821	1,701	2,093	59
24 Northumberland & Durham	1	6,305	1	6,307	3,269	3,038	3,772	60
25 Ontario	2	4,859	....	4,861	2,527	2,334	2,871	59
26 Oxford	2	4,879	....	4,881	2,535	2,346	3,128	64
27 Peel	2	2,556	....	2,558	1,310	1,248	1,527	60
28 Perth	....	4,426	....	4,426	2,346	2,080	2,878	65
29 Peterborough	2	3,219	....	3,221	1,623	1,598	1,898	59
30 Prescott and Russell	13	3,110	1	3,124	1,605	1,519	1,843	59
31 Prince Edward	4	2,041	....	2,045	1,029	1,016	1,260	62
32 Renfrew	18	5,838	1	5,857	2,939	2,918	3,095	53
33 Simcoe	6	8,414	....	8,420	4,299	4,121	4,746	56
34 Stormont	3	2,778	....	2,781	1,414	1,367	1,624	58
35 Victoria	3	3,463	....	3,466	1,759	1,707	2,094	60
36 Waterloo	13	3,778	....	3,791	1,993	1,798	2,572	68
37 Welland	7	4,253	....	4,260	2,255	2,005	2,378	56
38 Wellington	5	4,465	....	4,470	2,324	2,146	2,765	62
39 Wentworth	1	5,372	....	5,373	2,688	2,685	3,113	58
40 York	3	13,669	....	13,672	6,932	6,740	8,384	61
41 Algoma	12	3,009	2	3,023	1,513	1,510	1,558	51
42 Kenora	....	494	....	494	256	238	235	47
43 Manitoulin	3	1,737	....	1,740	891	849	903	52
44 Muskoka	6	2,821	....	2,827	1,453	1,374	1,528	54
45 Nipissing	56	1,805	....	1,861	926	935	998	54
46 Parry Sound	8	3,692	....	3,700	1,907	1,793	1,853	50
47 Rainy River	3	1,163	....	1,166	582	584	609	52
48 Sudbury	14	2,775	....	2,789	1,325	1,464	1,402	50
49 Timiskaming	10	2,941	....	2,951	1,505	1,446	1,452	49
50 Thunder Bay, etc.	2	2,068	....	2,070	1,026	1,044	1,061	51
Totals	346	204,410	12	204,768	104,810	99,958	120,563	58.87

THE PUBLIC SCHOOLS—Continued

I. TABLE A—SCHOOL ATTENDANCE—Continued

	Cities	Pupils under 5 years of age	Pupils between 5 and 21 years of age	Pupils over 21 years of age	Total number of pupils attending school	Boys	Girls	Average daily attendance of pupils	Percentage of average to total attendance
1	Belleville	....	1,966	....	1,966	1,010	956	1,332	68
2	Brantford	....	4,342	....	4,342	2,142	2,200	3,262	75
3	Chatham	....	2,253	....	2,253	1,143	1,110	1,528	68
4	Fort William	....	3,225	....	3,225	1,598	1,627	2,319	72
5	Galt	....	2,140	....	2,140	1,062	1,078	1,556	73
6	Guelph	15	2,410	3	2,428	1,205	1,223	1,683	69
7	Hamilton	60	16,576	1	16,637	8,349	8,288	12,397	74
8	Kingston	40	3,348	....	3,388	1,684	1,704	2,274	67
9	Kitchener	....	2,856	....	2,856	1,464	1,392	2,138	75
10	London	....	9,397	....	9,397	4,718	4,679	6,255	67
11	Niagara Falls	....	1,755	....	1,755	883	872	1,291	74
12	Ottawa	385	10,394	....	10,779	5,362	5,417	7,496	69
13	Peterborough	....	3,178	....	3,178	1,612	1,566	2,289	72
14	Port Arthur	....	2,555	....	2,555	1,248	1,307	1,732	68
15	St. Catharines	....	2,735	1	2,736	1,379	1,357	1,946	71
16	St. Thomas	....	2,470	....	2,470	1,283	1,187	1,944	79
17	Sarnia	....	1,948	....	1,948	956	992	1,430	73
18	Sault Ste. Marie	15	2,221	....	2,236	1,127	1,109	1,556	70
19	Stratford	....	2,565	....	2,565	1,306	1,259	1,908	74
20	Toronto	71	74,960	4	75,035	37,507	37,528	51,337	68
21	Welland	8	1,572	....	1,580	816	764	1,004	63
22	Windsor	....	3,417	....	3,417	1,731	1,686	2,485	73
23	Woodstock	....	1,475	....	1,475	752	723	1,078	73
	Totals	594	159,758	9	160,261	80,337	80,024	112,240	69.99
	Towns								
1	Alexandria	....	75	....	75	32	43	46	61
2	Alliston	....	264	....	264	119	145	186	70
3	Almonte	....	363	....	363	186	177	225	62
4	Amherstburg	....	272	....	272	148	124	162	60
5	Arnprior	....	551	....	551	283	268	376	68
6	Aurora	....	473	....	473	239	234	346	73
7	Aylmer	44	460	....	504	232	272	333	66
8	Bala	....	69	....	69	29	40	52	75
9	Barrie	....	1,361	....	1,361	667	694	910	67
10	Blenheim	....	336	....	336	160	176	229	68
11	Blind River	....	191	....	191	75	116	105	55
12	Bonfield	....	27	....	27	15	12	12	44
13	Bothwell	....	119	....	119	66	53	83	70
14	Bowmanville	....	634	....	634	312	322	404	64
15	Bracebridge	....	542	....	542	254	288	382	71
16	Brampton	....	741	....	741	379	362	533	72
17	Bridgeburg	....	391	....	391	211	180	271	69
18	Brockville	....	1,438	....	1,438	711	727	1,037	72
19	Bruce Mines	....	193	....	193	99	94	99	51
20	Burlington	2	433	....	435	218	217	313	72
21	Cache Bay	....	150	....	150	65	85	96	64
22	Campbellford	....	688	....	688	316	372	452	66
23	Carleton Place	....	810	....	810	401	409	550	68
24	Charlton	....	104	....	104	69	35	39	37
25	Chesley	....	369	....	369	195	174	267	72
26	Clinton	....	371	....	371	179	192	285	77
27	Cobalt	....	852	....	852	435	417	554	65
28	Cobourg	....	656	....	656	311	345	436	66
29	Cochrane	....	317	....	317	145	172	190	60
30	Collingwood	....	1,342	....	1,342	656	686	980	74
31	Copper Cliff	....	672	....	672	337	335	512	76
32	Cornwall	....	578	....	578	284	294	423	73

THE PUBLIC SCHOOLS—Continued

I. TABLE A—SCHOOL ATTENDANCE—Continued

Towns—Continued	Pupils under 5 years of age	Pupils between 5 and 21 years of age	Pupils over 21 years of age	Total number of pupils attending school	Boys	Girls	Average daily attendance of pupils	Percentage of average to total attendance
33 Deseronto	....	474	....	474	235	239	291	61
34 Dresden	....	284	....	284	143	141	181	64
35 Dryden	....	259	....	259	120	139	170	66
36 Dundas	....	834	....	834	399	435	619	74
37 Dunnville	....	541	....	541	264	277	373	69
38 Durham	....	322	....	322	137	185	225	70
39 Eastview	....	352	....	352	167	185	210	60
40 Englehart	....	209	....	209	98	111	116	55
41 Essex	....	288	....	288	143	145	214	74
42 Ford	....	187	....	187	89	98	93	50
43 Forest	....	263	....	263	116	147	164	62
44 Fort Frances	....	318	....	318	151	167	202	63
45 Frood Mine	....	12	....	12	7	5	6	50
46 Gananoque	....	832	....	832	414	418	600	72
47 Goderich	....	665	....	665	333	332	470	71
48 Gore Bay	....	152	....	152	73	79	118	78
49 Gravenhurst	....	386	....	386	187	199	220	57
50 Haileybury	....	554	....	554	288	266	369	67
51 Hanover	....	504	....	504	233	271	378	76
52 Harriston	....	285	....	285	165	120	188	66
53 Hawkesbury	1	210	....	211	107	104	126	60
54 Hespeler	....	584	....	584	311	273	417	71
55 Huntsville	....	531	....	531	257	274	344	65
56 Ingersoll	....	919	....	919	468	451	651	71
57 Iroquois Falls	....	263	....	263	141	122	95	36
58 Kearney	....	136	....	136	65	71	77	56
59 Keewatin	....	304	....	304	161	143	190	62
60 Keuora	....	996	....	996	487	509	686	69
61 Kincardine	....	267	....	267	139	128	199	74
62 Kingsville	....	392	....	392	220	172	253	65
63 Latchford	....	61	....	61	37	24	34	56
64 Leamington	....	578	....	578	289	289	406	70
65 Lindsay	....	1,130	....	1,130	553	577	822	73
66 Listowel	....	383	....	383	192	191	252	66
67 Little Current	....	287	....	287	147	140	161	56
68 Massey	....	106	....	106	64	42	86	81
69 Matheson	....	127	....	127	76	51	54	42
70 Mattawa	....	48	....	48	22	26	28	60
71 Meaford	....	522	....	522	274	248	392	75
72 Midland	2	1,512	....	1,514	726	788	1,021	67
73 Milton	....	448	....	448	199	249	296	66
74 Mimico	....	546	....	546	261	285	358	66
75 Mitchell	....	261	....	261	127	134	193	74
76 Mount Forest	....	250	....	250	125	125	170	68
77 Napanee	....	557	....	557	293	264	362	65
78 New Liskeard	....	485	....	485	230	255	339	70
79 Newmarket	....	643	....	643	335	308	456	71
80 Niagara	....	218	....	218	120	98	153	70
81 North Bay	....	1,272	....	1,272	644	628	964	76
82 Oakville	....	543	....	543	283	260	362	67
83 Orangeville	....	366	....	366	178	188	288	79
84 Orillia	....	1,534	....	1,534	773	761	1,076	70
85 Oshawa	....	1,750	....	1,750	874	876	1,251	71
86 Owen Sound	1	2,506	....	2,507	1,279	1,228	1,837	73
87 Palmerston	....	331	....	331	168	163	241	73
88 Paris	....	628	....	628	315	313	454	72
89 Parkhill	....	143	....	143	62	81	122	85
90 Parry Sound	....	1,152	....	1,152	567	585	744	65

THE PUBLIC SCHOOLS—Continued

I. TABLE A—SCHOOL ATTENDANCE—Concluded

Towns—Concluded	Pupils under 5 years of age	Pupils between 5 and 21 years of age	Pupils over 21 years of age	Total number of pupils attending school	Boys	Girls	Average daily attendance of pupils	Percentage of average to total attendance
91 Pembroke	....	900	....	900	461	439	638	71
*92 Penetanguishene	....	835	....	835	403	432	554	66
93 Perth	....	391	....	391	181	210	246	63
94 Petrolea	....	588	....	588	302	286	418	71
95 Picton	....	506	....	506	259	247	375	74
96 Port Hope	....	770	....	770	382	388	569	74
97 Powassan	....	172	....	172	80	92	115	67
98 Prescott	....	278	....	278	136	142	218	78
99 Preston	....	817	....	817	418	399	614	75
100 Rainy River	....	354	....	354	171	183	213	60
101 Renfrew	5	617	....	622	336	286	396	64
102 Ridgetown	....	368	....	368	169	199	259	70
103 Rockland	....	88	....	88	53	35	56	64
104 St. Mary's	....	556	....	556	300	256	431	78
105 Sandwich	....	232	....	232	127	105	206	89
106 Seaforth	....	322	....	322	154	168	205	64
107 Simcoe	7	829	....	836	425	411	565	68
108 Sioux Lookout	....	165	....	165	78	87	88	53
109 Smith's Falls	....	1,072	....	1,072	528	544	784	73
110 Southampton	....	316	....	316	152	164	232	73
111 Stayner	....	188	....	188	94	94	134	71
112 Steelton	....	1,037	....	1,037	538	499	694	67
113 Strathroy	....	476	....	476	242	234	343	72
114 Sturgeon Falls	....	215	....	215	100	115	150	70
115 Sudbury	....	764	....	764	396	368	565	74
116 Thessalon	....	410	....	410	198	212	270	66
117 Thornbury	....	156	....	156	74	82	108	69
118 Thorold	....	461	....	461	233	228	295	64
119 Tilbury	....	152	....	152	74	78	108	71
120 Tillsonburg	12	613	....	625	322	303	421	67
121 Timmins	17	301	....	318	168	150	172	54
122 Trenton	....	1,039	....	1,039	502	537	605	58
123 Trout Creek	....	97	....	97	55	42	66	68
124 Uxbridge	....	203	....	203	108	95	167	82
125 Vankleek Hill	....	160	....	160	83	77	107	67
126 Walkerton	....	266	....	266	131	135	193	73
127 Walkerville	....	992	....	992	484	508	665	67
128 Wallaceburg	....	705	....	705	338	367	459	65
129 Waterloo	....	717	....	717	344	373	570	79
130 Webbwood	....	157	....	157	79	78	101	64
131 Weston	....	561	....	561	292	269	396	71
132 Whitby	....	413	....	413	222	191	*272	66
133 Wiarton	....	454	....	454	229	225	309	68
134 Wingham	....	462	....	462	210	252	284	61
Totals	91	67,727	....	67,818	33,790	34,028	46,691	68.85
Totals								
1 Rural Schools	346	204,410	12	204,768	104,810	99,958	120,563	58.87
2 Cities	594	159,758	9	160,361	80,337	80,024	112,240	69.99
3 Towns	91	67,727	....	67,818	33,790	34,028	46,691	68.85
4 Villages	23	24,645	1	24,669	12,282	12,387	16,158	65.49
5 Grand Totals, 1917	1054	456,540	22	457,616	231,219	226,397	295,652	64.60
6 Percentages	.23	99.76	....	.....	50.52	49.47	64.60	.....

* Including Protestant Separate School.

THE PUBLIC

II. TABLE B—NUMBER OF PUPILS IN THE

Rural Schools	Kindergarten-Primary	Primer	1st Book	2nd Book	3rd Book	4th Book
1 Brant	58	856	457	686	812	671
2 Bruce	.....	1,252	725	1,017	1,224	1,247
3 Carleton	.....	1,609	748	1,067	1,134	1,175
4 Dufferin	.....	575	288	505	531	532
5 Dundas	.....	676	318	454	519	625
6 Elgin	.....	876	505	869	885	921
7 Essex	.....	1,506	974	1,143	991	845
8 Frontenac	.....	1,231	492	781	800	876
9 Glengarry	.....	881	346	655	619	426
10 Grey	.....	1,567	916	1,442	1,647	1,567
11 Haldimand	.....	585	317	496	477	591
12 Haliburton	.....	471	223	292	248	254
13 Halton	.....	540	293	415	392	504
14 Hastings	.....	1,606	897	1,411	1,271	1,063
15 Huron	.....	1,160	747	1,297	1,241	1,399
16 Kent	.....	1,549	791	1,236	1,075	1,260
17 Lambton	.....	1,155	712	892	1,102	1,197
18 Lanark	.....	679	385	564	602	612
19 Leeds and Grenville	.....	1,343	718	1,038	1,133	1,361
20 Lennox and Addington	.....	845	412	614	609	642
21 Lincoln	.....	828	391	664	608	647
22 Middlesex	.....	1,288	917	1,406	1,401	1,443
23 Norfolk	.....	859	479	839	727	588
24 Northumberland and Durham	.....	1,385	795	1,406	1,306	1,309
25 Ontario	.....	1,278	618	877	1,008	1,000
26 Oxford	.....	977	730	998	1,073	1,050
27 Peel	.....	653	283	549	526	526
28 Perth	.....	776	546	701	1,229	1,104
29 Peterborough	.....	952	397	708	619	519
30 Prescott and Russell	.....	981	402	599	476	595
31 Prince Edward	.....	469	295	396	428	435
32 Renfrew	.....	1,759	849	1,143	1,008	1,036
33 Simcoe	.....	2,182	1,113	1,827	1,650	1,556
34 Stormont	.....	705	319	571	567	610
35 Victoria	.....	785	447	643	763	749
36 Waterloo	.....	774	467	912	970	626
37 Welland	.....	1,244	499	783	886	800
38 Wellington	.....	850	542	795	1,088	1,083
39 Wentworth	17	1,452	705	1,094	1,104	919
40 York	.....	3,849	2,301	3,108	2,587	1,775
41 Algoma	.....	1,002	372	688	514	400
42 Kenora	.....	161	106	92	95	39
43 Manitoulin	.....	542	195	362	309	322
44 Muskoka	.....	791	383	572	543	483
45 Nipissing	.....	649	384	372	272	178
46 Parry Sound	.....	1,204	607	713	605	500
47 Rainy River	.....	357	163	216	186	215
48 Sudbury	.....	1,298	380	445	379	269
49 Timiskaming	.....	1,076	437	548	495	388
50 Thunder Bay, etc	.....	774	335	349	331	254
Totals	75	52,862	27,721	41,250	41,065	39,186

SCHOOLS—Continued

VARIOUS BRANCHES OF INSTRUCTION

	Beyond 4th Book	Art	Geography	Music	Literature	Composition	Grammar	English History
1	25	3,286	2,724	3,009	2,859	3,053	771	1,278
2	90	5,236	4,369	4,643	4,830	4,412	1,599	1,898
3	21	5,614	4,778	4,590	4,944	5,003	1,303	2,787
4	19	2,340	1,927	1,761	2,130	2,098	586	757
5	85	2,382	1,945	1,563	2,076	2,161	912	956
6	77	4,015	3,176	3,815	3,918	3,918	1,150	1,471
7	15	5,413	3,952	3,667	5,127	5,217	1,811	1,353
8	22	4,202	2,989	3,306	4,202	4,202	895	1,829
9	23	2,736	2,240	2,154	2,412	2,511	560	1,232
10	73	6,926	5,738	5,065	6,140	6,017	1,897	2,698
11	29	2,420	1,904	1,857	2,015	2,017	982	946
12	21	1,458	969	833	1,354	1,151	362	439
13	12	2,025	1,588	1,449	1,871	1,774	597	612
14	63	5,971	4,995	5,143	5,586	5,494	1,181	1,772
15	254	5,616	4,924	4,356	5,197	5,198	1,914	2,115
16	81	5,565	4,456	4,206	4,711	4,439	1,752	2,179
17	125	4,959	3,859	3,712	4,663	4,888	1,386	2,908
18	14	2,821	2,396	1,853	2,519	2,540	801	1,074
19	44	5,544	4,332	4,158	4,909	4,939	1,513	2,224
20	23	3,017	2,426	2,410	2,781	2,761	781	1,258
21	36	3,077	2,498	2,869	2,753	2,727	969	1,024
22	129	6,481	5,354	4,680	5,718	5,950	2,029	2,562
23	30	3,424	2,777	3,040	3,103	3,167	627	1,183
24	106	6,072	4,836	4,126	5,347	5,324	2,072	2,027
25	80	4,839	3,605	4,253	3,567	3,641	1,198	1,883
26	53	4,809	4,284	3,903	4,563	4,559	1,269	1,970
27	21	2,485	1,920	2,004	1,672	2,120	605	734
28	70	4,273	3,679	3,848	3,894	3,809	1,784	1,636
29	26	3,111	2,390	2,628	2,700	2,698	715	1,274
30	71	2,922	2,094	2,301	2,482	2,644	698	1,220
31	22	2,045	2,045	1,415	2,045	2,045	530	756
32	62	5,727	5,141	4,535	5,304	5,470	1,153	2,768
33	92	8,329	6,771	4,511	7,641	7,472	1,982	2,524
34	9	2,584	2,205	2,246	2,300	2,239	767	1,087
35	79	3,311	2,793	2,271	3,016	2,974	911	1,147
36	42	3,673	3,149	3,490	3,791	3,791	818	1,100
37	48	3,996	3,060	2,977	3,287	3,329	1,117	1,148
38	112	4,088	3,258	3,337	3,565	3,457	1,917	1,739
39	82	5,256	4,161	4,812	4,724	4,423	1,307	1,989
40	52	13,447	12,288	12,749	12,835	12,824	2,891	3,184
41	47	2,934	2,118	1,874	2,322	2,310	580	772
42	1	494	331	494	494	494	135	135
43	10	1,704	1,241	1,207	1,373	1,372	357	626
44	55	2,529	2,056	1,428	2,462	2,264	777	1,020
45	6	1,813	1,315	1,501	1,460	1,460	263	659
46	71	3,626	2,019	2,784	3,288	3,284	641	968
47	29	1,055	788	675	819	867	322	366
48	18	2,577	1,619	2,378	2,091	2,060	387	768
49	7	2,746	2,102	2,388	2,428	2,269	479	722
50	27	2,035	1,463	1,938	1,861	1,874	540	573
.	2,609	197,008	159,047	156,212	177,129	176,710	52,593	71,350

THE PUBLIC

II. TABLE B—NUMBER OF PUPILS IN THE

Rural Schools	Canadian History	Physiology and Hygiene	Nature Study	Physical Culture	Bookkeeping	Arithmetic and Mensuration
1 Brant	1,432	2,232	3,058	3,305	13	13
2 Bruce	2,351	4,221	4,790	4,452	164	71
3 Carleton	3,080	4,855	5,362	5,642	16	16
4 Dufferin	1,912	1,968	2,264	2,240	17	8
5 Dundas	978	1,587	1,940	2,335	83	83
6 Elgin	1,460	3,895	3,946	4,073	67	71
7 Essex	2,072	5,239	5,255	5,459	28	11
8 Frontenac	1,912	4,198	4,199	4,202	15	21
9 Glengarry	1,345	2,012	2,351	2,755	16	22
10 Grey	3,239	5,616	6,530	6,893	55	51
11 Haldimand	1,164	1,845	2,360	2,353	23	25
12 Haliburton	651	981	1,197	826	15	21
13 Halton	760	1,555	1,855	2,085	2	7
14 Hastings	2,066	5,280	5,721	6,188	86	52
15 Huron	2,773	4,417	5,261	5,748	210	193
16 Kent	2,457	4,218	4,785	5,729	68	65
17 Lambton	2,963	4,473	4,968	5,082	97	146
18 Lanark	1,286	2,303	2,506	2,774	1	4
19 Leeds and Grenville	2,558	5,080	5,431	5,477	13	35
20 Lennox and Addington	1,371	2,591	2,749	2,978	29	12
21 Lincoln	1,159	2,507	3,053	3,130	48	32
22 Middlesex	3,215	4,932	5,572	6,148	136	103
23 Norfolk	1,424	2,985	3,220	3,454	18	21
24 Northumberland and Durham	2,358	4,455	5,405	5,949	59	81
25 Ontario	1,918	2,088	4,775	4,859	58	59
26 Oxford	2,107	4,200	4,587	4,686	25	54
27 Peel	846	1,859	2,341	2,479	1	12
28 Perth	2,095	3,446	3,970	4,359	42	55
29 Peterborough	1,362	2,542	2,967	3,043	17	20
30 Prescott and Russell	1,499	2,436	2,758	2,984	56	76
31 Prince Edward	838	1,804	1,835	1,984	2	2
32 Renfrew	2,967	5,139	5,394	5,718	21	32
33 Simcoe	3,238	6,871	7,941	7,860	134	62
34 Stormont	1,152	1,889	2,318	2,675	2	3
35 Victoria	1,316	2,855	3,176	2,950	90	57
36 Waterloo	1,543	2,956	3,482	3,455	48	41
37 Welland	1,348	2,756	3,798	3,718	13	38
38 Wellington	2,040	3,506	4,007	4,127	45	68
39 Wentworth	2,306	3,107	4,728	4,619	58	74
40 York	3,888	12,430	13,096	13,574	41	41
41 Algoma	953	2,411	2,812	2,799	29	40
42 Kenora	135	494	494	494	.....	.....
43 Manitoulin	735	1,631	1,687	1,729	3	9
44 Muskoka	1,274	1,907	2,161	2,076	42	121
45 Nipissing	947	1,577	1,668	1,821	6	6
46 Parry Sound	1,270	3,261	2,378	3,194	66	62
47 Rainy River	484	927	982	1,094	21	28
48 Sudbury	939	2,000	2,186	2,445	19	18
49 Timiskaming	988	1,466	2,546	2,797	27	8
50 Thunder Bay, etc	646	1,986	2,006	2,015	68	25
Totals	84,820	160,990	183,871	192,811	2,213	2,175

SCHOOLS—Continued

VARIOUS BRANCHES OF INSTRUCTION—Continued

	Algebra	Geometry	Latin	French (beyond 4th Book)	French (Primer to 4th Book, incl.)	German (beyond 4th Book)	German (Primer to 4th Book, incl.)	Elementary Science	Commercial Subjects	Agriculture	Manual Training	Household Science
1	12	1	7	6	.....	.....	.....	6	4	75	22	.....
2	61	45	5	2	2	2	.....	23	19	407	381	22
3	14	12	14	.....	12	.....	.....	14	.....	636	77	.....
4	8	6	4	3	.....	.....	.....	3	.....	389	.....	.....
5	83	78	83	57	.....	.....	.....	83	12	1,504	95	7
6	57	9	8	.....	.....	.....	.....	45	17	1,361	1,104	185
7	12	.....	.....	2	531	.....	.....	9	1	348	436	109
8	16	2	3	.....	.....	.....	.....	5	.....	45	185	.....
9	18	3	16	6	112	.....	.....	12	.....	1,092	263	61
10	43	26	21	.....	2	.....	.....	19	10	701	368	96
11	17	10	5	7	4	.....	.....	21	.....	82	182	.....
12	21	3	.....	.....	.....	.....	.....	8	.....	.....	.....	.....
13	8	2	5	.....	2	.....	.....	.....	.....	547	278	16
14	47	14	7	.....	2	.....	.....	13	2	1,111	1,415	106
15	192	96	63	16	8	2	.....	149	33	811	139	65
16	64	27	5	4	204	.....	.....	22	5	2,609	731	62
17	110	60	54	38	1	.....	.....	90	60	703	1,359	220
18	4	1	.....	3	.....	.....	.....	3	.....	710	288	62
19	20	11	7	1	3	.....	.....	3	3	1,302	61	15
20	12	2	.....	2	.....	.....	.....	2	2	2	.....	.....
21	24	9	5	.....	.....	.....	.....	25	11	436	46	.....
22	94	33	34	21	25	.....	1	47	28	2,730	2,291	546
23	21	5	.....	.....	.....	.....	.....	6	.....	348	408	167
24	79	44	43	5	15	1	.....	12	14	792	248	110
25	60	5	11	1	4	.....	.....	56	24	300	88	.....
26	35	15	5	.....	.....	.....	.....	42	39	793	313	17
27	10	1	.....	.....	.....	.....	.....	7	.....	430	.....	.....
28	50	33	26	2	8	.....	.....	10	3	1,622	151	16
29	21	16	9	8	.....	.....	.....	4	3	75	.....	.....
30	75	20	47	33	1,021	.....	.....	62	10	431	391	25
31	.....	.....	.....	.....	.....	.....	.....	.....	2	467	1,996	164
32	20	16	2	.....	.....	.....	.....	20	17	232	.....	.....
33	62	29	8	3	164	1	.....	27	28	499	551	33
34	4	.....	2	.....	.....	.....	.....	.....	.....	325	.....	.....
35	56	.....	1	4	.....	.....	.....	3	.....	.....	.....	.....
36	41	33	8	.....	4	2	12	18	20	495	389	.....
37	36	19	18	.....	.....	.....	.....	28	7	398	356	.....
38	67	23	41	14	.....	.....	.....	35	9	413	312	32
39	71	28	62	40	2	.....	.....	67	30	1,786	303	21
40	41	.....	.....	.....	.....	.....	.....	41	.....	1,706	392	370
41	39	8	2	.....	.....	.....	.....	18	3	863	130	25
42	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
43	9	6	3	3	.....	.....	.....	6	3	13	.....	.....
44	40	7	7	.....	2	.....	.....	30	8	104	131	8
45	6	.....	.....	.....	763	.....	.....	5	.....	54	121	.....
46	59	20	13	.....	12	.....	.....	54	13	55	65	.....
47	27	12	5	4	.....	.....	.....	18	.....	47	54	11
48	18	3	2	.....	421	.....	.....	7	1	12	325	8
49	8	2	2	.....	.....	.....	.....	2	.....	290	421	47
50	21	22	1	1	.....	.....	.....	16	16	.....	.....	.....
	1,913	817	664	286	3,324	8	13	1,196	457	30,151	16,846	2,626

THE PUBLIC

II. TABLE B—NUMBER OF PUPILS IN THE

Cities	Kindergarten	Kindergarten-Primary	Primer	1st Book	2nd Book	3rd Book	4th Book
1 Belleville	.....	.....	551	270	403	373	369
2 Brantford	53	379	1,011	670	771	992	466
3 Chatham	238	157	322	292	365	461	418
4 Fort William	437	.....	660	470	555	594	509
5 Galt	36	116	452	214	505	456	361
6 Guelph	199	.....	501	275	379	517	426
7 Hamilton	1,413	.....	2,847	2,393	4,131	3,494	2,136
8 Kingston	341	.....	740	467	436	733	671
9 Kitchener	280	44	417	361	703	589	462
10 London	844	208	1,367	1,106	2,144	1,976	1,752
11 Niagara Falls	.....	.....	482	251	321	361	340
12 Ottawa	1,327	182	1,427	1,351	2,104	1,913	2,054
13 Peterborough	435	.....	745	384	604	502	508
14 Port Arthur	220	.....	549	400	507	519	360
15 St. Catharines	165	44	643	412	379	567	526
16 St. Thomas	.....	198	500	309	420	592	451
17 Sarnia	.....	.....	377	331	415	461	364
18 Sault Ste. Marie	182	35	438	335	369	516	361
19 Stratford	.....	217	421	345	393	657	532
20 Toronto	9,007	.....	13,076	8,489	15,453	16,068	12,303
21 Wellaud	170	.....	359	246	323	280	202
22 Windsor	.....	.....	1,197	565	714	556	385
23 Woodstock	.....	.....	415	245	216	296	303
Totals	15,347	1,580	29,497	20,181	32,610	33,473	26,259
Towns							
1 Alexandria	.....	.....	21	8	12	14	20
2 Alliston	.....	.....	82	43	53	42	44
3 Almonte	.....	.....	100	79	45	76	63
4 Amherstburg	.....	.....	86	40	45	45	56
5 Arnprior	.....	.....	119	59	102	122	149
6 Aurora	.....	.....	105	72	114	103	79
7 Aylmer	63	53	49	48	88	85	118
8 Bala	.....	.....	20	12	10	8	18
9 Barrie	.....	123	307	165	310	235	221
10 Blenheim	.....	.....	108	54	61	47	66
11 Blind River	.....	.....	58	30	31	36	36
12 Bonfield	.....	.....	9	4	4	4	5
13 Bothwell	.....	.....	23	15	28	25	28
14 Bowmanville	.....	.....	153	92	147	119	123
15 Bracebridge	.....	.....	178	66	85	135	78
16 Brampton	.....	.....	199	126	148	167	101
17 Bridgeburg	.....	.....	82	62	78	118	51
18 Brockville	.....	.....	443	194	208	284	309
19 Bruce Mines	.....	.....	78	9	40	41	25
20 Burlington	.....	54	96	68	70	87	60
21 Cache Bay	.....	.....	34	22	40	24	19
22 Campbellford	101	.....	89	108	142	126	122
23 Carleton Place	.....	.....	275	144	107	191	93
24 Charlton	.....	.....	50	12	15	13	14
25 Chesley	.....	.....	83	42	97	76	71
26 Clinton	.....	.....	82	53	44	81	111
27 Cobalt	.....	.....	315	122	189	154	72
28 Cobourg	78	.....	116	95	154	101	112
29 Cochrane	.....	.....	110	54	58	46	45
30 Collingwood	122	.....	253	197	250	280	240
31 Copper Cliff	.....	.....	312	108	101	90	61
32 Cornwall	.....	.....	152	68	126	108	124

SCHOOLS—Continued

VARIOUS BRANCHES OF INSTRUCTION—Continued

	Beyond 4th Book	Art	Geography	Music	Literature	Composition	Grammar	English History	Canadian History
1	.....	1,966	1,966	1,966	1,966	1,966	369	1,145	1145
2	.....	4,342	4,342	4,342	4,342	4,342	466	725	718
3	.....	2,161	1,731	2,161	1,858	1,963	415	802	684
4	.....	2,788	2,128	2,788	2,788	2,788	509	1,103	1,103
5	.....	2,069	2,069	1,929	2,069	2,069	401	622	917
6	131	2,074	1,869	1,824	2,211	2,015	557	1,031	1,036
7	223	15,176	13,675	16,520	14,614	14,868	3,165	5,894	7,994
8	.....	3,047	2,307	3,047	3,047	3,047	671	657	747
9	.....	2,576	2,576	2,576	2,576	2,576	462	1,935	2,518
10	.....	8,345	8,115	8,345	8,345	8,345	1,752	3,887	4,889
11	.....	1,755	1,755	1,755	1,755	1,755	375	254	291
12	421	9,452	9,452	9,452	9,452	9,452	2,246	3,558	3,526
13	.....	2,743	2,743	2,743	2,743	2,743	508	1,010	1,614
14	.....	2,335	2,335	2,335	2,335	2,335	360	879	879
15	.....	2,571	1,884	.....	1,884	1,884	788	1,472	1,472
16	.....	2,403	2,403	2,403	1,966	2,403	451	565	711
17	.....	1,948	1,948	1,948	1,948	1,948	364	825	825
18	.....	2,091	1,780	2,091	2,054	2,054	361	413	514
19	.....	2,565	2,565	2,565	2,565	2,565	436	939	1,195
20	639	65,400	35,456	66,553	64,303	65,147	21,104	20,847	28,660
21	.....	1,410	1,051	1,580	1,580	1,580	477	477	477
22	.....	3,417	1,655	3,417	2,220	2,220	385	385	941
23	.....	1,475	1,060	.....	1,060	815	303	303	303
	1,414	144,109	106,865	142,340	139,681	140,880	36,925	49,728	63,159
1	.....	75	54	75	54	54	20	54	54
2	.....	264	182	264	264	264	44	45	94
3	.....	363	363	363	363	363	63	184	184
4	.....	272	272	216	272	272	56	56	101
5	.....	551	551	551	551	551	149	200	271
6	.....	473	368	473	368	473	79	79	103
7	.....	380	380	504	380	380	203	203	203
8	1	69	69	69	49	49	49	37	37
9	.....	1,361	1,361	1,361	1,238	1,238	456	456	752
10	.....	336	228	.....	336	336	66	113	113
11	.....	191	191	191	191	191	36	191	191
12	1	26	14	23	18	19	6	12	5
13	.....	119	96	119	81	81	53	28	28
14	.....	634	634	634	634	634	242	134	242
15	.....	542	288	.....	542	327	128	213	213
16	.....	741	536	741	536	741	101	268	268
17	.....	362	348	350	362	362	51	291	240
18	.....	1,438	1,438	1,438	1,438	1,438	499	1,438	1,438
19	.....	193	184	193	184	193	25	52	71
20	.....	331	231	331	331	285	147	118	136
21	11	150	150	150	150	150	30	54	94
22	.....	587	587	587	587	587	122	93	248
23	.....	810	810	810	810	535	93	93	191
24	.....	104	104	104	104	104	14	104	104
25	.....	369	369	369	369	369	71	296	332
26	.....	371	371	371	371	371	111	236	371
27	.....	852	852	852	852	852	72	604	676
28	.....	578	462	578	462	578	213	81	128
29	4	317	317	317	317	317	49	152	152
30	.....	1,220	1,167	946	1,056	1,049	435	553	788
31	.....	672	360	.....	466	360	151	61	109
32	.....	578	578	578	578	578	124	135	97

THE PUBLIC

II. TABLE B—NUMBER OF PUPILS IN THE

Cities—Concluded	Physiology and Hygiene	Nature Study	Physical Culture	Bookkeeping	Arithmetic and Mensuration	Algebra
1 Belleville	1,966	1,966	1,966	.....	.....	.....
2 Brantford	4,342	4,342	4,342	.....	.....	.....
3 Chatham	1,858	2,253	2,253	.....	.....	.....
4 Fort William	2,788	2,788	2,788	.....	.....	.....
5 Galt	2,069	2,140	1,908	.....	.....	.....
6 Guelph	1,842	1,994	2,227	131	131	.....
7 Hamilton	14,046	14,881	16,637	223	223	223
8 Kingston	3,047	3,047	3,047	.....	.....	.....
9 Kitchener	2,518	2,576	2,856	.....	.....	.....
10 London	8,345	8,345	8,345	.....	.....	.....
11 Niagara Falls	1,509	1,668	1,755	.....	.....	.....
12 Ottawa	9,452	9,452	9,452	413	421	.....
13 Peterborough	2,743	2,743	2,743	.....	.....	.....
14 Port Arthur	2,555	2,555	2,555	.....	.....	.....
15 St. Catharines	1,472	2,736	2,736	.....	.....	.....
16 St. Thomas	2,358	2,358	2,358	.....	668	.....
17 Sarnia	1,948	1,948	1,948	.....	.....	.....
18 Sault Ste. Marie	2,091	2,147	2,147	.....	.....	.....
19 Stratford	2,542	2,565	2,565	.....	.....	.....
20 Toronto	63,813	64,560	66,410	1,379	639	610
21 Welland	997	1,580	1,580	.....	.....	.....
22 Windsor	3,417	3,417	3,417	.....	.....	.....
23 Woodstock	303	1,096	1,475	.....	.....	.....
Totals	138,021	143,157	147,510	2,146	2,082	833
Towns						
1 Alexandria	75	75	75	.....	.....	.....
2 Alliston	264	264	264	.....	.....	.....
3 Almonte	263	363	363	.....	.....	.....
4 Amherstburg	272	272	272	.....	.....	.....
5 Arnprior	551	551	551	.....	.....	.....
6 Aurora	473	473	473	.....	.....	.....
7 Aylmer	504	504	504	.....	.....	.....
8 Bala	49	49	69	.....	1	.....
9 Barrie	752	1,361	1,361	.....	.....	.....
10 Blenheim	174	174	336	.....	.....	.....
11 Blind River	191	191	191	.....	.....	.....
12 Bonfield	23	23	23	.....	1	1
13 Bothwell	119	119	119	.....	.....	.....
14 Bowmanville	634	634	634	.....	.....	.....
15 Bracebridge	241	542	542	.....	.....	.....
16 Brampton	536	536	741	.....	.....	.....
17 Bridgeburg	362	362	98	.....	.....	.....
18 Brockville	1,438	1,438	1,438	.....	.....	.....
19 Bruce Mines	106	193	106	.....	.....	.....
20 Burlington	285	285	282	.....	.....	.....
21 Cache Bay	139	139	150	11	11	11
22 Campbellford	587	587	587	122	.....	.....
23 Carleton Place	535	535	810	.....	.....	.....
24 Charlton	104	104	104	.....	.....	.....
25 Chesley	369	369	369	.....	.....	.....
26 Clinton	371	371	371	.....	.....	.....
27 Cobalt	852	852	852	.....	.....	.....
28 Cobourg	462	578	578	.....	.....	.....
29 Cochrane	317	317	317	4	4	4
30 Collingwood	1,117	1,220	1,220	.....	.....	.....
31 Copper Cliff	61	466	672	.....	.....	.....
32 Cornwall	578	578	578	.....	.....	.....

SCHOOLS—Continued

VARIOUS BRANCHES OF INSTRUCTION—Continued

	Geometry	Latin	French (beyond 4th Book)	French (Primer to 4th Book, incl.)	German (beyond 4th Book)	German (Primer to 4th Book, incl.)	Elementary Science	Commercial Subjects	Agriculture	Manual Training	Household Science
1	.....	.....	.....	.....	.....	.....	.....	.....	20	1,224	140
2	.....	.....	.....	.....	.....	.....	.....	.....	180	781	436
3	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,958	747
4	.....	.....	.....	.....	.....	.....	.....	.....	.....	242	267
5	.....	.....	.....	.....	.....	.....	.....	.....	.....	176	175
6	.....	.....	.....	.....	.....	.....	.....	131	72	449	482
7	74	.....	.....	.....	.....	.....	.....	223	.....	1,602	1,944
8	.....	.....	.....	.....	.....	.....	.....	.....	.....	3,047	479
9	.....	.....	.....	.....	.....	.....	.....	.....	.....	118	129
10	.....	.....	.....	.....	.....	.....	.....	.....	176	1,214	1,344
11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
12	.....	.....	.....	.....	.....	.....	224	421	.....	2,992	3,014
13	.....	.....	.....	.....	.....	.....	.....	.....	.....	172	171
14	.....	.....	.....	.....	.....	.....	.....	.....	75	145	215
15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
16	.....	.....	.....	.....	.....	.....	.....	.....	.....	240	292
17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
18	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,222	256
19	.....	.....	.....	.....	.....	.....	.....	.....	1,067	592	522
20	388	.....	.....	.....	.....	.....	50	635	742	60,253	40,158
21	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
22	.....	.....	.....	.....	.....	.....	.....	.....	.....	444	497
23	.....	.....	.....	.....	.....	.....	.....	.....	.....	176	157
	462	.....	.....	.....	.....	.....	274	1,410	2,332	77,047	51,385
1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
6	.....	.....	.....	.....	.....	.....	.....	.....	40	.....	.....
7	.....	.....	.....	.....	.....	.....	.....	.....	.....	185	.....
8	.....	.....	.....	.....	.....	.....	.....	1	.....	27	27
9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
12	.....	1	1	.....	.....	.....	.....	.....	.....	22	.....
13	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
14	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
16	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
18	.....	.....	.....	.....	.....	.....	.....	.....	.....	282	316
19	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
20	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
21	5	.....	.....	.....	.....	.....	11	.....	.....	.....	.....
22	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
23	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
24	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
26	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
27	.....	.....	.....	.....	.....	.....	.....	.....	.....	852	47
28	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
29	.....	.....	.....	.....	.....	.....	.....	.....	.....	317	.....
30	.....	.....	.....	.....	.....	.....	.....	.....	.....	468	292
31	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
32	.....	.....	.....	.....	.....	.....	.....	.....	.....	446	233

THE PUBLIC

II. TABLE B—NUMBER OF PUPILS IN THE

Towns—Continued	Kinder-garten	Kinder-garten-Primary	Primer	1st Book	2nd Book	3rd Book	4th Book
33 Deseronto			149	80	80	85	80
34 Dresden			105	57	44	41	37
35 Dryden			56	47	54	54	48
36 Dundas		126	111	107	107	221	162
37 Dunnville			133	95	96	95	122
38 Durham			95	53	54	46	74
39 Eastview			139	53	80	44	36
40 Englehart			85	34	31	28	31
41 Essex			84	45	44	65	50
42 Ford			73	16	53	16	29
43 Forest			55	55	41	46	66
44 Fort Frances			83	42	57	75	61
45 Frood Mine			6	2	1	2	1
46 Gananoque			248	97	160	184	143
47 Goderich	23		137	67	118	144	176
48 Gore Bay			29	21	34	38	30
49 Gravenhurst			120	51	94	53	68
50 Haileybury			144	88	130	131	61
51 Hanover			97	54	176	113	64
52 Harriston			59	47	58	71	50
53 Hawkesbury			57	30	18	46	60
54 Hespeler		61	94	81	139	123	76
55 Huntsville			174	92	88	97	80
56 Ingersoll	100		122	136	131	243	187
57 Iroquois Falls			91	52	59	42	19
58 Kearney			42	14	22	25	21
59 Keewatin			58	43	54	91	58
60 Kenora			250	135	215	227	169
61 Kincardine			38	37	56	58	78
62 Kingsville			111	53	73	87	55
63 Latchford			18	6	20	7	10
64 Leamington			161	76	123	102	116
65 Lindsay			281	141	251	239	218
66 Listowel		47	25	53	43	107	108
67 Little Current			106	34	57	35	55
68 Massey			41	5	26	12	18
69 Matheson			52	23	17	22	13
70 Mattawa			9	9	12	8	8
71 Meaford			100	81	111	100	130
72 Midland			422	295	348	245	204
73 Milton			122	99	66	87	74
74 Mimico			119	58	121	99	115
75 Mitchell			33	32	36	75	85
76 Mount Forest			67	41	39	68	35
77 Napanee			152	74	134	91	106
78 New Liskeard			144	95	104	64	78
79 Newmarket			200	75	126	135	107
80 Niagara			54	33	50	39	42
81 North Bay	52		282	137	255	261	285
82 Oakville			122	91	64	136	130
83 Orangeville			79	52	63	83	89
84 Orillia			318	240	346	315	315
85 Oshawa			480	342	409	256	263
86 Owen Sound	256		389	354	536	472	500
87 Palmerston			117	60	79	47	28
88 Paris			122	75	105	189	137
89 Parkhill			30	17	26	24	46
90 Parry Sound			337	200	213	262	140
91 Pembroke	61		199	126	153	223	138
92*Penetanguishene			257	105	200	151	122

*Including Protestant Separate School.

SCHOOLS—Continued

VARIOUS BRANCHES OF INSTRUCTION—Continued

	Beyond 4th Book	Art	Geography	Music	Literature	Composition	Grammar	English History	Canadian History
33	.....	474	474	474	474	474	80	165	165
34	.....	284	284	284	284	284	78	78	78
35	.....	259	203	259	203	203	102	102	156
36	.....	834	587	834	708	708	480	331	479
37	.....	541	427	313	427	541	169	115	266
38	.....	322	227	322	322	322	120	174	174
39	.....	352	308	352	213	321	36	201	194
40	.....	209	209	209	209	209	99	59	59
41	.....	288	288	.....	288	288	115	50	115
42	.....	187	187	187	114	114	29	98	98
43	.....	263	208	263	263	263	66	112	120
44	.....	318	318	318	318	318	61	136	193
45	.....	12	4	12	4	4	1	4	4
46	.....	832	584	637	832	832	143	255	423
47	.....	642	593	642	593	642	225	425	425
48	.....	152	123	152	152	152	30	68	102
49	.....	386	362	274	386	386	83	87	238
50	.....	554	410	554	410	554	61	322	322
51	.....	504	504	504	504	504	64	367	367
52	.....	285	226	285	285	285	121	50	121
53	.....	211	211	211	211	211	60	106	106
54	10	584	584	584	584	584	86	86	152
55	.....	531	461	531	531	461	80	183	180
56	.....	819	819	100	819	819	187	87	377
57	.....	263	172	263	263	263	19	61	61
58	12	58	80	136	136	136	33	58	58
59	.....	246	304	304	304	304	58	149	203
60	.....	996	996	996	996	996	169	611	611
61	.....	267	267	267	267	267	78	32	54
62	13	392	228	392	392	392	155	68	155
63	.....	61	37	61	37	37	17	10	17
64	.....	578	341	578	417	578	218	104	114
65	.....	1,120	849	1,130	1,130	1,130	218	622	619
66	.....	383	258	383	342	342	215	116	108
67	.....	287	181	287	181	287	55	115	181
68	4	106	83	106	106	106	22	8	59
69	.....	127	75	127	75	75	35	13	35
70	2	48	40	48	33	33	9	9	9
71	.....	522	522	522	522	522	150	187	341
72	.....	1,514	1,514	1,514	1,514	1,514	204	174	241
73	.....	448	326	388	448	388	115	115	161
74	34	546	427	546	546	546	149	112	136
75	.....	261	196	261	261	261	160	85	160
76	.....	250	200	250	200	200	35	35	35
77	.....	557	557	557	557	557	106	197	197
78	.....	485	485	485	485	485	78	485	485
79	.....	643	443	643	643	643	107	115	125
80	.....	218	218	218	218	218	81	131	131
81	.....	1,220	938	1,220	1,220	1,220	285	404	645
82	.....	541	431	541	541	541	130	140	207
83	.....	366	287	366	287	287	89	172	172
84	.....	1,534	1,369	1,534	1,534	1,534	315	912	976
85	.....	1,750	1,245	1,750	1,498	1,750	263	277	501
86	.....	2,251	1,898	1,915	2,013	1,898	498	495	666
87	.....	331	331	.....	331	331	75	75	75
88	.....	628	628	628	628	628	137	628	628
89	.....	143	143	143	143	143	46	70	70
90	.....	1,152	815	1,152	1,152	1,152	288	628	660
91	.....	839	839	.....	839	839	138	340	287
92	.....	835	775	782	835	835	183	288	324

THE PUBLIC

II. TABLE B—NUMBER OF PUPILS IN THE

Towns—Continued	Physiology and Hygiene	Nature Study	Physical Culture	Bookkeeping	Arithmetic and Mensuration	Algebra
33 Deseronto	474	474	474	.....	.....	.....
34 Dresden	284	284	284	.....	.....	.....
35 Dryden	259	203	259	.....	.....	.....
36 Dundas	834	834	834	.....	.....	.....
37 Dunnville	541	541	541	.....	.....	.....
38 Durham	322	322	322	.....	.....	.....
39 Eastview	352	352	352	.....	.....	.....
40 Englehart	59	209	209	.....	.....	.....
41 Essex	288	288	288	.....	.....	.....
42 Ford	187	187	187	.....	.....	.....
43 Forest	263	263	263	.....	.....	.....
44 Fort Frances	318	318	318	.....	.....	.....
45 Frood Mine	12	12	12	.....	.....	.....
46 Gananoque	832	832	832	.....	.....	.....
47 Goderich	225	642	642	176	.....	.....
48 Gore Bay	152	152	152	.....	.....	.....
49 Gravenhurst	386	386	386	.....	.....	.....
50 Haileybury	554	554	554	.....	.....	.....
51 Hanover	504	504	504	.....	.....	.....
52 Harriston	285	235	226	.....	.....	.....
53 Hawkesbury	211	211	211	.....	.....	.....
54 Hespeler	238	584	584	10	10	10
55 Huntsville	271	401	531	.....	.....	.....
56 Ingersoll	819	819	819	87	.....	.....
57 Iroquois Falls	263	263	263	.....	.....	.....
58 Kearney	58	136	136	12	12	12
59 Keewatin	304	304	304	.....	.....	.....
60 Kenora	996	996	996	.....	.....	.....
61 Kincardine	267	267	267	.....	.....	.....
62 Kingsville	392	392	392	9	13	13
63 Latchford	43	43	43	.....	.....	.....
64 Leamington	578	578	578	.....	.....	.....
65 Lindsay	1,130	1,130	1,130	.....	.....	.....
66 Listowel	342	383	383	.....	.....	.....
67 Little Current	287	287	287	.....	.....	.....
68 Massey	96	102	106	4	4	4
69 Matheson	75	75	127	.....	.....	.....
70 Mattawa	28	48	48	2	2	.....
71 Meaford	522	522	522	.....	.....	.....
72 Midland	930	1,514	1,514	.....	.....	.....
73 Milton	448	448	448	.....	.....	.....
74 Mimico	115	512	546	.....	34	34
75 Mitchell	160	261	261	.....	.....	.....
76 Mount Forest	250	250	250	.....	.....	.....
77 Napanee	557	557	557	.....	.....	.....
78 New Liskeard	485	485	485	.....	.....	.....
79 Newmarket	664	664	664	.....	.....	.....
80 Niagara	218	218	218	.....	.....	.....
81 North Bay	1,220	1,220	1,220	140	.....	.....
82 Oakville	541	541	541	.....	.....	.....
83 Orangeville	277	366	366	.....	.....	.....
84 Orillia	1,534	1,534	1,534	.....	.....	.....
85 Oshawa	1,750	1,750	1,750	.....	.....	.....
86 Owen Sound	2,136	2,136	2,251	.....	.....	.....
87 Palmerston	331	331	331	.....	.....	.....
88 Paris	628	628	628	.....	.....	.....
89 Parkhill	143	143	143	46	.....	.....
90 Parry Sound	1,152	1,152	1,152	.....	.....	.....
91 Pembroke	839	839	839	.....	.....	.....
92 Penetanguishene	679	835	835	.....	.....	.....

*Including Protestant Separate School.

SCHOOLS—Continued

VARIOUS BRANCHES OF INSTRUCTION—Continued

	Geometry	Latin	French (beyond 4th Book)	French (Primer to 4th Book, incl.)	German (beyond 4th Book)	German (Primer to 4th Book, incl.)	Elementary Science	Commercial Subjects	Agriculture	Manual Training	Household Science
33											309
34											
35											
36											
37											
38											
39											
40									38		
41									65		
42											
43											
44											
45											
46											
47											
48											
49											
50											
51											
52											
53											
54	10						10	10			
55											
56										207	223
57									61		
58	12	7	6				12				
59											
60											
61											
62		13					13		4		
63											
64											
65										849	
66										44	64
67											
68	2	4					4			46	
69											
70											
71											
72											
73											
74		34	34				34	34			
75										73	87
76											
77											
78										205	
79											
80											
81									374	929	291
82											
83										291	
84											
85											
86										305	329
87											
88											628
89										73	73
90											
91										427	258
92										483	

THE PUBLIC

II. TABLE B—NUMBER OF PUPILS IN THE

Towns—Continued	Kindergarten	Kindergarten-Primary	Primer	1st Book	2nd Book	3rd Book	4th Book
93 Perth	.....	.....	93	48	97	69	84
94 Petrolea	.....	.....	156	67	70	162	133
95 Picton	26	28	99	60	94	87	112
96 Port Hope	.....	.....	214	117	112	172	155
97 Powassan	.....	.....	34	32	34	33	39
98 Prescott	.....	.....	61	27	51	71	68
99 Preston	.....	62	122	117	209	171	136
100 Rainy River	.....	.....	127	52	81	51	21
101 Renfrew	51	.....	147	61	118	126	119
102 Ridgetown	.....	.....	101	44	53	99	71
103 Rockland	.....	.....	20	12	15	24	17
104 St. Mary's	.....	.....	154	50	84	154	114
105 Sandwich	.....	.....	50	70	46	54	12
106 Seaforth	32	.....	57	46	62	55	70
107 Simcoe	.....	103	132	116	229	127	129
108 Sioux Lookout	.....	16	35	30	29	34	21
109 Smith's Falls	.....	.....	340	124	201	170	237
110 Southampton	.....	.....	81	29	64	64	78
111 Stayner	.....	.....	38	22	50	35	43
112 Steelton	.....	.....	362	155	199	194	127
113 Strathroy	.....	.....	98	53	103	100	122
114 Sturgeon Falls	.....	.....	44	49	41	36	45
115 Sudbury	.....	.....	267	135	143	110	109
116 Thessalon	.....	46	59	73	106	55	71
117 Thornbury	.....	.....	34	13	33	31	45
118 Thorold	.....	.....	145	67	90	107	52
119 Tilbury	.....	.....	37	25	24	28	38
120 Tillsonburg	41	.....	60	101	163	111	149
121 Timmins	48	.....	94	22	58	43	48
122 Trenton	.....	.....	342	214	141	165	177
123 Trout Creek	.....	.....	33	15	12	19	13
124 Uxbridge	.....	.....	59	24	42	45	33
125 Vankleek Hill	.....	.....	40	19	24	32	45
126 Walkerton	.....	.....	65	40	47	60	54
127 Walkerville	.....	88	227	163	198	158	158
128 Wallaceburg	.....	.....	205	107	115	137	141
129 Waterloo	72	.....	93	90	165	176	121
130 Webbwood	.....	.....	56	15	37	22	27
131 Weston	.....	42	44	101	109	134	131
132 Whitby	.....	.....	105	34	93	89	92
133 Wiarton	.....	.....	73	72	126	97	86
134 Wingham	42	.....	69	63	58	142	88
Totals	1,168	849	16,742	9,858	13,328	13,477	12,272
Totals							
1 Rural Schools	.....	75	52,862	27,721	41,250	41,065	39,186
2 Cities	15,347	1,580	29,497	20,181	32,610	33,473	26,259
3 Towns	1,168	849	16,742	9,858	13,328	13,477	12,272
4 Villages	.....	289	5,947	3,463	4,887	4,981	4,849
5 Grand Totals, 1917	16,515	2,793	105,048	61,223	92,075	92,996	82,566
6 Grand Totals, 1916	17,450	.....	108,452	61,414	92,402	90,209	82,264
7 Increases	.....	2,793	.....	.....	.....	2,787	302
8 Decreases	935	.....	3,404	191	327	.....	.....
9 Percentages	3.60	.61	22.95	13.37	20.12	20.32	18.04

SCHOOLS—Continued

VARIOUS BRANCHES OF INSTRUCTION—Continued

	Beyond 4th Book	Art	Geography	Music	Literature	Composition	Grammar	English History	Canadian History
93	.....	391	250	391	250	298	84	84	153
94	.....	588	350	473	420	588	168	314	314
95	.....	452	452	452	452	452	112	75	37
96	.....	770	556	770	770	556	327	245	327
97	.....	172	138	172	172	172	39	72	72
98	.....	278	217	278	278	278	68	139	70
99	.....	817	755	817	817	633	136	307	307
100	22	354	227	354	354	354	43	55	73
101	.....	571	424	571	571	571	119	169	226
102	.....	368	368	368	368	368	71	88	153
103	.....	88	88	88	88	88	11	56	25
104	.....	556	442	392	556	442	114	114	392
105	.....	232	232	232	232	232	18	68	68
106	.....	187	233	.....	233	233	125	125	125
107	.....	836	733	836	733	733	129	420	529
108	.....	165	131	165	131	114	21	46	33
109	.....	1,072	608	1,072	608	608	407	152	255
110	.....	316	316	316	316	316	78	177	157
111	.....	188	128	138	128	150	43	96	91
112	.....	1,037	520	.....	520	520	127	127	127
113	.....	476	325	476	325	476	222	222	222
114	.....	215	152	215	171	171	45	81	122
115	.....	764	764	764	764	764	109	219	219
116	.....	410	305	410	410	410	71	45	26
117	.....	156	122	156	122	122	61	45	76
118	.....	461	388	461	461	461	83	132	132
119	.....	152	115	152	115	115	90	90	90
120	.....	625	625	625	625	625	149	159	218
121	5	318	270	318	270	270	53	144	202
122	.....	1,039	910	1,039	1,039	1,039	217	233	514
123	5	97	74	60	74	74	18	32	97
124	.....	203	203	203	203	203	33	120	120
125	.....	160	160	79	160	160	61	77	77
126	.....	266	266	266	221	221	54	85	153
127	.....	963	514	992	677	677	158	137	316
128	.....	705	500	705	705	705	141	338	393
129	.....	645	645	645	645	645	297	99	205
130	.....	157	157	157	157	157	27	146	141
131	.....	561	475	561	561	475	265	265	134
132	.....	413	308	413	274	299	92	181	181
133	.....	454	381	399	381	309	86	55	86
134	.....	420	420	420	420	420	230	188	188
	124	66,246	56,261	59,753	61,319	61,522	16,249	24,358	29,829
1	2,609	197,008	159,047	156,212	177,129	176,710	52,593	71,350	84,820
2	1,414	144,109	106,865	142,340	139,681	140,880	36,925	49,728	63,159
3	124	66,246	56,261	59,753	61,319	61,522	16,249	24,358	29,829
4	253	24,384	20,843	20,568	21,418	21,933	7,796	9,643	12,074
5	4,400	431,747	343,016	378,873	399,547	401,045	113,563	155,079	189,882
6	4,969	428,334	368,756	374,437	395,635	395,484	117,296	160,579	194,071
7	.....	3,413	.....	4,436	3,912	5,561	.....	.....	.....
8	569	.....	25,740	.....	.....	.....	3,733	5,500	4,189
9	.96	94.34	74.95	82.79	87.31	87.63	24.81	33.88	41.49

THE PUBLIC

II. TABLE B—NUMBER OF PUPILS IN THE

Towns—Concluded	Physiology and Hygiene	Nature Study	Physical Culture	Bookkeeping	Arithmetic and Mensuration	Algebra
93 Perth	153	391	391	.....	.....	.....
94 Petrolea	314	588	588	.....	.....	.....
95 Picton	452	452	452	.....	.....	.....
96 Port Hope	327	770	770	.....	.....	.....
97 Powassan	172	172	172	.....	.....	.....
98 Prescott	278	278	278	.....	.....	.....
99 Preston	755	817	817	.....	.....	.....
100 Rainy River	354	354	354	.....	22	22
101 Renfrew	571	571	571	.....	.....	.....
102 Ridgetown	368	368	368	.....	.....	.....
103 Rockland	88	88	88	.....	.....	.....
104 St. Mary's	392	392	556	.....	.....	.....
105 Sandwich	232	232	232	.....	.....	.....
106 Seaforth	125	233	290	.....	.....	.....
107 Simcoe	733	836	836	.....	.....	.....
108 Sioux Lookout	131	131	165	.....	.....	.....
109 Smith's Falls	608	1,072	1,072	.....	.....	.....
110 Southampton	316	316	316	.....	.....	.....
111 Stayner	128	188	188	.....	.....	.....
112 Steelton	1,037	1,037	1,037	.....	.....	.....
113 Strathroy	476	476	476	122	.....	.....
114 Sturgeon Falls	152	152	171	27	.....	.....
115 Sudbury	764	764	764	.....	.....	.....
116 Thessalon	232	410	410	.....	.....	.....
117 Thornbury	156	156	156	.....	.....	.....
118 Thorold	346	322	461	.....	.....	.....
119 Tilbury	115	115	152	.....	.....	.....
120 Tillsonburg	625	625	625	.....	.....	.....
121 Timmins	202	270	318	.....	5	5
122 Trenton	1,039	1,039	1,039	.....	.....	.....
123 Trout Creek	97	97	97	5	5	1
124 Uxbridge	203	203	203	.....	.....	.....
125 Vankleek Hill	160	160	160	.....	.....	.....
126 Walkerton	171	192	266	.....	.....	.....
127 Walkerville	514	992	992	.....	.....	.....
128 Wallaceburg	705	705	705	.....	.....	.....
129 Waterloo	552	645	717	.....	.....	.....
130 Webbwood	157	157	157	.....	.....	.....
131 Weston	413	561	561	.....	.....	.....
132 Whitby	299	274	413	.....	.....	.....
133 Wiarton	183	381	454	.....	.....	.....
134 Wingham	230	420	420	.....	.....	.....
Totals	57,237	64,444	66,207	777	124	117
Totals						
1 Rural Schools	160,990	183,871	192,811	2,213	2,175	1,913
2 Cities	138,021	143,157	147,510	2,146	2,082	833
3 Towns	57,237	64,444	66,207	777	124	117
4 Villages	19,259	23,176	23,554	257	283	228
5 Grand Totals, 1917	375,507	414,648	430,082	5,393	4,664	3,091
6 Grand Totals, 1916	370,271	409,964	420,700	5,923	4,448	3,684
7 Increases	5,236	4,684	9,382	.....	216	.....
8 Decreases	.....	.....	.....	530	.....	593
9 Percentages	82.05	90.61	93.98	1.17	1.01	.67

SCHOOLS—Continued

VARIOUS BRANCHES OF INSTRUCTION—Concluded

	Geometry	Latin	French (beyond 4th Book)	French (Primer to 4th Book, incl.)	German (beyond 4th Book)	German (Primer to 4th Book, incl.)	Elementary Science	Commercial Subjects	Agriculture	Manual Training	Household Science
93	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
94	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
95	.....	.....	.....	.....	.....	.....	.....	.....	199	452	.....
96	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
97	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
98	.....	.....	.....	.....	.....	.....	.....	.....	.....	139	139
99	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
100	13	13	13	.....	.....	.....	22	.....	.....	.....	.....
101	.....	.....	.....	.....	.....	.....	.....	.....	98	.....	.....
102	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
103	.....	.....	.....	.....	.....	.....	.....	.....	.....	88	.....
104	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
105	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
106	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
107	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
108	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
109	.....	.....	.....	.....	.....	.....	.....	.....	.....	180	227
110	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
111	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
112	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
113	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
114	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
115	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
116	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
117	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
118	.....	.....	.....	.....	.....	.....	.....	.....	.....	287	.....
119	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
120	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
121	.....	.....	.....	.....	.....	.....	.....	5	43	318	265
122	.....	.....	.....	.....	.....	.....	.....	.....	.....	333	.....
123	1	.....	.....	.....	.....	.....	5	5	.....	.....	.....
124	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
125	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
126	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
127	.....	.....	.....	.....	.....	.....	.....	.....	.....	153	163
128	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
129	.....	.....	.....	.....	.....	.....	.....	.....	.....	34	58
130	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
131	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
132	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
133	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
134	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	43	72	54	.....	.....	.....	111	55	922	8,515	4,029
1	817	664	286	3,324	8	13	1,196	457	30,151	16,846	2,626
2	462	.....	.....	.....	.....	.....	274	1,410	2,332	77,047	51,385
3	43	72	54	.....	.....	.....	111	55	922	8,515	4,029
4	124	138	68	285	.....	.....	183	98	1,744	1,653	102
5	1,446	874	408	3,609	8	13	1,764	2,020	35,149	104,061	58,142
6	2,045	926	356	4,072	18	47	1,788	2,180	27,539	95,135	45,840
7	.....	.....	52	.....	.....	.....	.....	.....	7,610	8,926	12,302
8	599	52	.....	463	10	34	24	160	.....	.....	.....
9	.31	.19	.08	.78	.....	.....	.38	.44	7.68	22.73	12.70

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III. TABLE C—TEACHERS, SALARIES,

	Rural Schools	Teachers			Salaries			
		Number of Teachers	Male	Female	Highest salary, male	Highest salary, female	Average salary of male teachers	Average salary of female teachers
					$	$	$	$
1	Brant	89	7	82	1,450	950	832	626
2	Bruce	175	24	151	1,000	750	623	591
3	Carleton	152	10	142	1,200	850	767	604
4	Dufferin	93	9	84	675	675	626	600
5	Dundas	82	12	70	900	725	719	610
6	Elgin	118	10	108	1,000	750	722	612
7	Essex	127	20	107	1,025	800	716	616
8	Frontenac	144	12	132	600	700	474	485
9	Glengarry	79	5	74	675	660	570	565
10	Grey	228	26	202	800	750	641	582
11	Haldimand	77	5	72	875	700	688	598
12	Haliburton	61	4	57	900	600	706	414
13	Halton	61	2	59	750	800	725	626
14	Hastings	190	25	165	900	750	666	570
15	Huron	199	30	169	900	900	654	596
16	Kent	142	10	132	800	800	685	638
17	Lambton	176	16	160	1,000	750	674	612
18	Lanark	127	5	122	625	700	553	507
19	Leeds and Grenville	232	14	218	800	700	577	541
20	Lennox and Addington	118	7	111	600	700	552	497
21	Lincoln	77	8	69	950	750	787	614
22	Middlesex	200	21	179	825	800	659	608
23	Norfolk	104	9	95	800	750	658	595
24	Northumberland and Durham	211	28	183	900	800	661	601
25	Ontario	130	14	116	900	700	684	597
26	Oxford	130	17	113	900	800	766	628
27	Peel	82	6	76	750	775	662	616
28	Perth	121	10	111	800	800	735	613
29	Peterborough	105	8	97	600	900	550	564
30	Prescott and Russell	98	7	91	950	800	647	528
31	Prince Edward	77	8	69	700	800	609	583
32	Renfrew	164	7	157	750	800	607	532
33	Simcoe	227	26	201	1,000	750	670	599
34	Stormont	82	6	76	725	675	654	578
35	Victoria	114	13	101	900	725	673	582
36	Waterloo	99	26	73	900	800	713	621
37	Welland	102	12	90	1,800	825	917	609
38	Wellington	151	15	136	1,250	700	747	606
39	Wentworth	118	16	102	1,200	800	811	627
40	York	284	37	247	1,600	1,100	846	641
41	Algoma	79	4	75	750	825	687	548
42	Kenora	19	3	16	750	700	667	548
43	Manitoulin	48	7	41	700	650	604	489
44	Muskoka	109	7	102	650	800	486	437
45	Nipissing	55	3	52	800	800	608	470
46	Parry Sound	129	15	114	1,000	800	600	487
47	Rainy River	46	11	35	900	750	639	580
48	Sudbury	63	9	54	1,100	900	856	568
49	Timiskaming	76	14	62	1,100	1,050	759	647
50	Thunder Bay, etc.	65	16	49	1,400	1,000	647	629
1	Totals, Rural Schools	6,035	636	5,399	1,800	1,100	686	580
2	" Cities	3,367	362	3,005	2,500	2,200	1,637	795
3	" Towns	1,354	140	1,214	2,025	1,300	1,174	628
4	" Villages	518	81	437	1,800	800	908	573
5	Grand Totals, 1917	*11274	1,219	10,055	2,500	2,200	1,038	650
6	Grand Totals, 1916	10,640	1,294	9,346	2,400	2,200	957	626
7	Increases	.....	.....	.....	100	.....	81	24
8	Decreases	.....	.....	.....	.....	.....	.....	.....
9	Percentages	.....	10.81	89.18	.....	.....	.....	.....

*Kindergarten, Household Science and Manual Training teachers included for 1917

SCHOOLS—Continued
CERTIFICATES, EXPERIENCE, ETC.

Salaries—Continued

	Average salary, male teachers with I Class certificates	Average salary, female teachers with I Class certificates	Average salary, male teachers with II Class certificates	Average salary, female teachers with II Class certificates	Average salary, male teachers with III or District certificates	Average salary, female teachers with III or District certificates	Average salary Kindergarten Primary teachers
	$	$	$	$	$	$	$
1	.....	682	862	621	650	550	625
2	.....	602	648	611	492	504	.....
3	.....	700	816	618	575	523	.....
4	637	625	629	610	585	557	.....
5	.....	617	719	610	.....	.....	.....
6	.....	700	722	613	.....	533	500
7	800	658	745	629	619	540	.....
8	.....	581	.....	608	482	444	.....
9	.....	550	612	597	550	503	.....
10	681	647	648	600	475	528	.....
11	600	637	710	603	.....	529	.....
12	700	.....	825	525	475	446	.....
13	.....	627	725	628	.....	550	.....
14	656	631	735	625	568	510	.....
15	667	640	653	599	.....	535	.....
16	750	642	694	638	550	615	.....
17	800	621	677	617	617	534	.....
18	.....	605	581	584	587	450	.....
19	550	620	643	579	504	491	.....
20	.....	608	550	571	542	459	.....
21	758	645	805	619	.....	559	.....
22	.....	627	659	607	.....	.....	.....
23	.....	606	666	606	600	525	.....
24	787	635	677	621	546	533	.....
25	.....	617	688	606	625	516	.....
26	625	691	775	622	.....	650	.....
27	750	608	645	619	.....	450	.....
28	750	685	733	614	.....	500	.....
29	.....	608	600	600	533	521	.....
30	750	700	717	579	540	503	.....
31	.....	675	630	612	575	519	.....
32	600	683	683	597	533	489	.....
33	600	612	680	614	625	540	.....
34	.....	600	654	584	.....	490	.....
35	700	583	677	614	600	491	.....
36	717	675	712	626	.....	541	.....
37	600	625	945	606	.....	571	.....
38	1,250	630	723	610	.....	559	.....
39	1,017	679	763	623	.....	.....	.....
40	950	632	830	646	.....	522	.....
41	750	.....	667	655	.....	514	.....
42	.....	.....	625	700	750	550	.....
43	.....	.....	640	608	575	481	.....
44	.....	600	650	556	517	438	.....
45	.....	.....	737	606	.....	483	.....
46	.....	750	783	578	489	463	.....
47	.....	.....	733	641	610	595	.....
48	700	825	886	682	800	522	.....
49	883	842	765	712	.....	570	.....
50	.....	700	655	714	669	608	.....
1	762	641	715	614	563	502	562
2	1,777	834	1,447	805	.....	792	690
3	1,357	654	1,138	628	650	581	632
4	950	613	886	576	400	522	.....
5	1,548	728	916	673	562	507	674
6	1,434	681	874	654	541	483	.....
7	114	47	42	19	21	24	.....
8	.....	.....	.....	.....	.....	.....	.....
9	.....	.....	.....	.....	.....	.....	.....

THE PUBLIC
III. TABLE C—TEACHERS, SALARIES,

Rural Schools—Continued	Salaries—Continued				
	Average salary Kindergarten teachers	Average salary Manual Training teachers	Average salary Household Science teachers	Average salary, male teachers with Temporary certificates	Average salary, female teachers with Temporary certificates
	$	$	$	$	$
1 Brant					
2 Bruce				525	487
3 Carleton					459
4 Dufferin					
5 Dundas					
6 Elgin					
7 Essex					
8 Frontenac				450	384
9 Glengarry				525	514
10 Grey				500	505
11 Haldimand					
12 Haliburton					370
13 Halton					
14 Hastings				500	472
15 Huron					450
16 Kent					
17 Lambton					550
18 Lanark				425	395
19 Leeds and Grenville					481
20 Lennox and Addington				517	433
21 Lincoln					
22 Middlesex					
23 Norfolk					
24 Northumberland & Durham				400	492
25 Ontario					500
26 Oxford					
27 Peel					
28 Perth					
29 Peterborough					433
30 Prescott and Russell				550	445
31 Prince Edward					
32 Renfrew					428
33 Simcoe					567
34 Stormont					
35 Victoria					450
36 Waterloo					450
37 Welland					
38 Wellington				550	
39 Wentworth					
40 York					
41 Algoma					455
42 Kenora					515
43 Manitoulin				450	408
44 Muskoka				400	385
45 Nipissing				350	396
46 Parry Sound				437	439
47 Rainy River				600	534
48 Sudbury					455
49 Timiskaming				617	522
50 Thunder Bay, etc				525	533
1 Totals, Rural Schools				505	435
2 " Cities	684	1,505	859		
3 " Towns	555	1,350	662		567
4 " Villages					412
5 Grand Totals, 1917	676	1,500	848	505	436
6 Grand Totals, 1916				464	409
7 Increases				41	27
8 Decreases					
9 Percentages					

SCHOOLS—Continued

CERTIFICATES, EXPERIENCE, ETC.—Continued

	Number who have ever attended a Model School in Ontario	Number who have ever attended a Normal School in Ontario	Number who have ever attended the Normal College or F. of E. in Ontario	Number of University Graduates	Certificates								
					1st Class or Interim 1st Class	2nd Class or Interim 2nd Class	3rd Class	District	Kindergarten Primary	Kindergarten	Manual Training	Household Science	Temporary
1	15	80	7	.....	7	79	2	.....	1	....	....	....	.....
2	25	148	9	.....	9	135	22	4	.....	....	....	....	5
3	18	134	2	.....	2	129	15	.....	.....	....	....	....	6
4	12	75	5	.....	5	70	18	.....	.....	....	....	....	.....
5	18	79	3	.....	3	79	.....	.....	.....	....	....	....	.....
6	16	114	2	.....	2	112	3	.....	1	....	....	....	.....
7	19	101	7	.....	7	98	21	1	.....	....	....	....	.....
8	78	46	4	2	4	41	35	30	.....	....	....	....	34
9	20	51	.....	.....	1	49	20	1	.....	....	....	....	8
10	45	177	15	.....	12	159	51	.....	.....	....	....	....	6
11	12	65	7	.....	7	63	7	.....	.....	....	....	....	.....
12	21	7	1	1	1	6	10	16	.....	....	....	....	28
13	14	54	6	.....	6	53	2	.....	.....	....	....	....	.....
14	75	105	12	3	12	94	65	8	.....	....	....	....	11
15	37	180	14	.....	15	169	14	.....	.....	....	....	....	1
16	6	126	13	.....	13	126	3	.....	.....	....	....	....	.....
17	18	160	13	.....	14	150	11	.....	.....	....	....	....	1
18	50	58	3	.....	3	59	34	10	.....	....	....	....	21
19	92	125	11	1	12	115	95	1	.....	....	....	....	9
20	49	42	6	1	6	37	26	20	.....	....	....	....	29
21	17	66	9	.....	8	61	8	.....	.....	....	....	....	.....
22	20	194	6	1	6	194	.....	.....	.....	....	....	....	.....
23	32	88	11	.....	10	80	14	.....	.....	....	....	....	.....
24	39	157	14	.....	15	151	34	1	.....	....	....	....	10
25	10	113	6	.....	6	111	12	.....	.....	....	....	....	1
26	13	118	10	.....	10	119	1	.....	.....	....	....	....	.....
27	.....	75	7	2	7	74	1	.....	.....	....	....	....	.....
28	9	116	4	.....	3	116	2	.....	.....	....	....	....	.....
29	31	73	3	1	3	64	22	5	.....	....	....	....	11
30	43	44	5	.....	5	42	23	1	.....	....	....	....	27
31	19	58	4	.....	4	46	27	.....	.....	....	....	....	.....
32	76	79	4	1	4	70	55	17	.....	....	....	....	18
33	56	167	15	1	16	165	43	.....	.....	....	....	....	3
34	21	74	3	.....	2	75	5	.....	.....	....	....	....	.....
35	18	93	4	.....	4	84	19	5	.....	....	....	....	2
36	18	92	6	.....	6	88	4	.....	.....	....	....	....	1
37	22	91	5	.....	8	90	4	.....	.....	....	....	....	.....
38	16	128	13	.....	15	118	17	.....	.....	....	....	....	1
39	16	108	11	1	11	107	.....	.....	.....	....	....	....	.....
40	63	251	28	1	28	249	7	.....	.....	....	....	....	.....
41	41	27	1	.....	1	25	32	11	.....	....	....	....	10
42	11	4	.....	.....	.....	3	9	2	.....	....	....	....	5
43	29	12	.....	.....	.....	11	17	13	.....	....	....	....	7
44	57	13	2	.....	1	11	42	25	.....	....	....	....	30
45	31	12	.....	.....	.....	10	23	2	.....	....	....	....	20
46	74	33	2	.....	2	28	52	26	.....	....	....	....	21
47	21	11	1	.....	.....	10	7	10	.....	....	....	....	19
48	23	27	3	.....	3	25	13	7	.....	....	....	....	15
49	21	33	9	.....	9	33	12	11	.....	....	....	....	11
50	43	17	1	.....	1	16	36	7	.....	....	....	....	5
1	1,530	4,301	329	16	329	4,099	995	234	2	....	....	....	376
2	1,581	2,576	508	98	549	2,400	10	.....	50	290	32	36	.....
3	525	1,192	118	13	125	1,160	27	2	14	20	1	2	3
4	171	440	51	3	49	444	19	2	.....	....	....	....	4
5	3,807	8,509	1,006	130	1,052	8,103	1,051	238	66	310	33	38	383
6	3,955	8,121	998	146	1,035	7,893	1,092	280	.....	....	....	....	340
7	.....	388	8	.....	17	210	.....	.....	.....	....	....	....	43
8	148	.....	.....	16	.....	.....	41	42	.....	....	....	....	.....
9	33.76	75.47	8.92	1.15	9.33	71.87	9.32	2.11	.58	2.75	.29	.33	3.39

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III. TABLE C—TEACHERS, SALARIES,

Experience

	Average experience in years of male teachers	Average experience in years of female teachers	Average experience in years of all teachers	Average experience, male teachers with I Class certificates	Average experience, female teachers with I Class certificates	Average experience, male teachers with II Class certificates	Average experience, female teachers with II Class certificates
1 Rural Schools	10.95	4.14	4.85	6.88	3.31	12.69	4.54
2 Cities	18.58	12.72	13.35	17.80	8.12	20.98	13.52
3 Towns	19.54	10,56	11.49	21.39	7.09	19.26	10.80
4 Villages	18.89	8.60	10.24	5.21	2.94	20.19	9.06
Average experience in years, 1917	14.73	7.67	8.44	15.79	5.96	15.76	8.45

Experience—Continued

	Number of teachers who at end of year had taught less than a year	One year, but less than two years	2 years, but less than 3 years	3 years, but less than 4	4 years, but less than 5	5 years, but less than 6	6 years, but less than 7	7 years, but less than 8
1 Totals, Rural Sch's	1,248	1,125	768	612	386	454	236	197
2 " Cities	79	112	171	208	174	174	170	155
3 " Towns	56	80	99	96	109	91	75	58
4 " Villages	33	42	54	44	46	35	21	17
5 Grand Totals, 1917	1,416	1,359	1,092	960	715	754	502	427
6 Grand Totals, 1916	1,510	1,256	1,127	873	735	574	454	467
7 Increases	.....	103	.....	87	.....	180	48	.....
8 Decreases	94	.....	35	.....	20	.....	.....	40
9 Percentages	12.55	12.05	9.68	8.51	6.34	6.68	4.45	3.78

	18 years, but less than 19	19 years, but less than 20	20 years, but less than 21	21 years, but less than 22	22 years, but less than 23	23 years, but less than 24	24 years, but less than 25	25 years, but less than 26	26 years, but less than 27
1 Rural Schools	34	24	31	25	20	23	21	14	16
2 Cities	64	76	67	52	34	50	62	50	45
3 Towns	22	21	29	18	16	21	17	11	17
4 Villages	8	8	10	9	7	6	3	5	3
5 Grand Totals, 1917	128	129	137	104	77	100	103	80	81
6 Grand Totals, 1916	130	112	132	77	88	94	72	88	66
7 Increases	.....	17	5	27	.....	6	31	.....	15
8 Decreases	2	.....	.....	.....	11	.....	.....	8	.....
9 Percentages	1.13	1.14	1.21	.92	.68	.88	.91	.70	.71

SCHOOLS—Continued

CERTIFICATES, EXPERIENCE, ETC.—Concluded

Experience—Continued

Average experience, male teachers with III Class or District certificates	Average experience, female teachers with III Class or District certificates	Average experience, Kindergarten-Primary teachers	Average experience, Kindergarten certificates	Average experience, Manual Training certificates	Average experience, Household Science teachers	Average experience, male teachers with Temporary certificates	Average experience, female teachers with Temporary certificates
7.67	3.89	.50	.....	.....	.....	1.47	1.41
.....	37.25	8.92	12.02	13.85	10.56	.....	.....
23.50	18.72	7.71	9.02	13.00	8.25	.....	1.33
17.50	12.48	.....	.....	.....	.....	.....	5.68
7.94	4.66	8.41	11.83	13.83	10.44	1.47	1.46

Experience—Continued

8 years, but less than 9	9 years, but less than 10	10 years, but less than 11	11 years, but less than 12	12 years, but less than 13	13 years, but less than 14	14 years, but less than 15	15 years, but less than 16	16 years, but less than 17	17 years, but less than 18
145	91	85	66	71	46	32	38	47	36
192	148	129	115	98	102	78	107	83	82
65	55	49	38	31	27	28	27	23	26
19	19	21	7	10	11	11	8	7	5
421	313	284	226	210	186	149	180	160	149
392	286	237	203	191	166	156	178	151	130
29	27	47	23	19	20	.....	2	9	19
.....	.....	.....	.....	.....	.....	7	.....	.....	.....
3.73	2.77	2.51	2.00	1.86	1.64	1.32	1.59	1.41	1.32

27 years, but less than 28	28 years, but less than 29	29 years, but less than 30	30 years, but less than 31	31 years, but less than 32	32 years, but less than 33	33 years, but less than 34	34 years, but less than 35	35 years, but less than 36	36 years, but less than 37	37 years, but less than 38	38 years, but less than 39	39 years, but less than 40	40 years or over
15	13	15	12	2	8	12	7	5	10	10	11	1	23
52	32	45	63	49	50	32	27	27	20	14	17	17	45
17	13	15	18	2	11	9	10	11	7	5	3	5	33
6	2	5	6	2	2	4	2	4	1	8	2	1	4
90	60	80	99	55	71	57	46	47	38	37	33	24	95
52	71	76	66	72	54	44	42	37	29	29	23	21	79
38	.....	4	33	.....	17	13	4	10	9	8	10	3	16
.....	11	.....	.....	17	.....	.....	.....	.....	.....	.....	.....	.....	.....
.79	.53	.70	.87	.48	.62	.50	.40	.41	.33	.32	.29	.21	.84

THE PUBLIC

IV. TABLE D—SCHOOL

Rural Schools	School Houses						School Visits				
	Number of Schools	Brick	Stone	Concrete	Frame	Log	By Inspectors	By Trustees	By Clergymen	By other persons	Total
1 Brant	62	50	2	1	9		175	43	22	220	460
2 Bruce	168	120	15	1	30		346	102	52	103	603
3 Carleton	122	37	17	7	57	4	249	66	19	92	426
4 Dufferin	92	64	4	2	22		182	74	26	67	349
5 Dundas	75	8	8	2	57		176	57	32	177	442
6 Elgin	105	83		2	20		281	82	8	97	468
7 Essex	112	43	3	7	59		251	84	39	93	467
8 Frontenac	143	13	20		105	5	339	106	63	56	564
9 Glengarry	75	4		3	67	1	189	35	31	44	299
10 Grey	222	126	52	2	42		431	93	80	202	806
11 Haldimand	74	66			8		163	55	8	65	291
12 Haliburton	59	2	2	1	50	4	114	37	31	61	243
13 Halton	58	31	13	6	8		130	44	15	74	263
14 Hastings	177	59	14	5	99		424	141	70	812	1,447
15 Huron	184	120	8	4	52		399	202	57	449	1,107
16 Kent	131	96		1	34		304	123	60	140	627
17 Lambton	168	93	1	3	71		325	114	49	245	733
18 Lanark	122	21	12		84	5	257	127	22	610	1,016
19 Leeds & Grenville	220	61	73	1	82	3	494	74	20	195	783
20 Lennox and Addington	112	21	7	4	79	1	222	76	26	76	400
21 Lincoln	64	34	7		23		138	123	36	285	582
22 Middlesex	184	142		1	41		386	121	48	237	792
23 Norfolk	98	68	9	7	14		225	73	25	157	480
24 Northumberland & Durham	202	139	11	3	49		437	189	74	485	1,185
25 Ontario	117	81	1		35		261	75	28	88	452
26 Oxford	107	91	4	1	11		293	105	39	192	629
27 Peel	74	54	6	3	11		177	95	26	58	356
28 Perth	112	92	5		15		315	164	90	292	861
29 Peterborough	98	48	3	3	39		232	86	51	188	557
30 Prescott and Russell	86	10		1	67	8	175	52	28	109	364

SCHOOLS—Continued

HOUSES, PRAYERS, ETC.

	Maps and Globes		Examinations, Prizes		Lectures			Number of Trees planted on Arbor Day	Number of Schools using authorized Scripture Readings	Number of Schools using the Bible	Number of Schools in which passages are memorized	Number of Schools opened and closed with Prayer	No. of Schools where Religious Instruction is given by Clergymen or their representatives
	Number of Maps	Number of Globes	Number of Schools holding Public Examinations	Number of Schools distributing Prizes or Merit Cards	By Inspectors	By other persons	Total						
1	825	76	25	11	3	.....	3	16	28	52	17	60	.....
2	2,107	203	73	37	.....	3	3	64	80	142	49	156	14
3	1,544	136	30	22	.....	.....	.....	211	62	86	17	115	1
4	1,014	97	13	18	.....	4	4	67	35	89	30	92	.....
5	1,128	103	.....	4	.....	.....	.....	22	52	45	....	74	.....
6	1,249	127	30	20	.....	2	2	34	59	70	19	102	3
7	1,399	123	9	19	.....	.....	.....	72	52	82	81	99	4
8	1,450	164	25	34	1	.....	1	56	48	112	35	141	2
9	1,013	90	25	11	.....	.....	.....	82	28	23	9	71	3
10	2,754	242	57	27	.....	2	2	99	71	190	62	222	3
11	851	81	15	7	.....	.....	.....	16	43	41	14	74	.....
12	401	58	6	5	.....	3	3	42	27	51	13	54	1
13	741	63	16	4	.....	1	1	35	22	47	15	58	1
14	2,384	203	79	77	.....	2	2	114	64	144	62	174	19
15	2,244	209	60	27	1	2	3	23	109	153	65	183	.....
16	1,680	147	129	2	.....	2	2	41	78	92	49	127	5
17	2,053	173	42	26	2	2	4	64	82	132	77	164	17
18	1,206	129	24	17	30	22	52	156	69	62	21	120	4
19	2,719	235	22	21	.....	.....	.....	66	108	95	29	215	.....
20	1,138	127	10	13	.....	1	1	29	43	73	31	110	.....
21	725	76	19	14	.....	7	7	13	26	38	17	64	1
22	2,480	232	86	48	.....	7	7	168	87	152	90	182	2
23	1,005	108	43	21	1	3	4	16	52	71	21	98	1
24	2,445	242	83	33	.....	5	5	83	110	154	68	191	37
25	1,513	121	21	13	.....	13	13	33	32	88	39	115	1
26	1,485	130	27	23	1	4	5	58	64	56	20	105	2
27	1,028	81	19	14	.....	.....	.....	42	22	51	7	74	.....
28	1,413	133	70	8	29	8	37	4	51	90	27	108	30
29	849	106	16	16	.....	3	3	37	47	68	34	95	4
30	1,063	92	14	12	.....	.....	.....	93	27	39	13	80	.....

THE PUBLIC

IV. TABLE D—SCHOOL

Rural Schools—Concluded	School Houses						School Visits				
	Number of Schools	Brick	Stone	Concrete	Frame	Log	By Inspectors	By Trustees	By Clergymen	By other persons	Total
31 Prince Edward	76	37	13	....	26	.....	191	36	9	199	435
32 Renfrew	153	49	1	6	87	10	356	111	58	88	613
33 Simcoe	207	145	2	9	51	.....	455	122	45	80	702
34 Stormont	75	3	.....	2	69	1	192	38	23	68	321
35 Victoria	104	74	4	....	26	.....	283	68	89	121	561
36 Waterloo	82	63	14	....	5	.....	212	170	21	557	960
37 Welland	78	49	5	5	19	.....	197	84	17	229	527
38 Wellington	142	94	37	4	7	.....	319	114	25	179	637
39 Wentworth	79	57	12	1	9	.....	141	82	36	88	347
40 York	164	128	1	2	33	.....	343	194	96	277	910
41 Algoma	77	8	1	3	61	4	162	46	35	114	357
42 Kenora	20	1	.....	....	15	4	35	21	2	25	83
43 Manitoulin	47	2	1	10	31	3	98	19	16	51	184
44 Muskoka	106	25	2	1	69	9	215	76	42	121	454
45 Nipissing	53	5	.....	....	39	9	92	65	62	70	289
46 Parry Sound	117	11	.....	3	90	13	254	84	43	140	521
47 Rainy River	44	1	.....	1	31	11	84	67	10	110	271
48 Sudbury	54	4	.....	....	50	7	112	36	30	43	221
49 Timiskaming	64	4	.....	....	54	6	60	73	26	27	186
50 Thunder Bay, etc.	55	8	.....	....	40	7	114	112	19	113	358
Totals											
1 Rural Schools	5,420	2,645	390	118	2,152	115	12,005	4,436	1,879	8,669	26,989
2 Cities	286	262	18	....	6	.....	6,086	2,046	370	15,984	24,486
3 Towns	237	182	18	4	33	.....	2,238	927	616	3,598	7,379
4 Villages	160	138	9	2	11	.....	921	357	212	370	1,860
5 Grand Totals, 1917	6,103	3,227	435	124	2,202	115	21,250	7,766	3,077	28,621	60,714
6 Grand Totals, 1916	6,091	3,202	444	117	2,208	120	20,724	7,906	2,705	26,578	57,913
7 Increases	12	25	.....	7	.....	.....	526	.....	372	2,043	2,801
8 Decreases	.....	.....	9	....	6	5	.....	140	.....	.....	.....
9 Percentages	.....	52.87	7.12	2.03	36.08	1.88	35.00	12.79	5.06	47.14	.....

SCHOOLS—Continued

HOUSES, PRAYERS, ETC.—Concluded

	Maps and Globes		Examinations, Prizes		Lectures									
	Number of Maps	Number of Globes	Number of Schools holding Public Examinations	Number of Schools distributing Prizes or Merit Cards	By Inspectors	By other persons	Total	Number of Trees planted on Arbor Day	Number of Schools using authorized Scripture Readings	Number of Schools using the Bible	Number of Schools in which passages are memorized	Number of Schools opened and closed with Prayer	No. of Schools where Religious Instruction is given by Clergymen or their representatives
31	932	80	19	.....	.....	.....	.....	8	50	56	56	76	11
32	1,563	186	22	31	.....	2	2	139	51	66	19	153	4
33	2,152	218	51	16	.....	2	2	131	67	167	51	203	38
34	998	83	23	5	.....	.....	.....	87	32	43	10	75	2
35	1,278	110	12	3	.....	.....	.....	28	25	81	13	99	6
36	1,030	99	46	7	.....	4	4	54	51	41	27	82	1
37	819	86	20	12	.....	6	6	64	23	60	22	78	1
38	1,698	149	26	14	.....	10	10	25	73	85	27	142	4
39	788	480	41	19	.....	2	2	101	45	62	22	77	4
40	1,971	195	57	21	3	11	14	85	93	127	48	160	3
41	772	79	19	9	.....	2	2	50	30	74	9	76	9
42	92	16	5	2	.....	4	4	12	3	16	3	20	.....
43	440	45	13	7	1	8	9	42	24	33	8	47	4
44	1,028	125	19	13	.....	2	2	128	46	82	6	105	6
45	337	49	24	5	.....	.....	.....	18	1	26	2	52	.....
46	1,321	124	25	10	.....	11	11	106	94	108	20	117	1
47	244	39	9	6	.....	2	2	58	18	41	6	44	6
48	407	52	11	5	.....	2	2	42	7	29	3	51	2
49	506	63	11	15	.....	1	1	33	17	54	15	61	8
50	317	54	24	17	.....	.....	.....	54	3	48	7	55	.....
1	62,599	6,439	1,565	821	72	165	237	3,101	2,431	3,887	1,405	5,296	265
2	6,066	570	104	117	40	224	264	*7	47	253	149	277	3
3	3,813	390	57	26	10	129	139	62	86	191	57	227	3
4	2,128	262	38	13	10	58	68	46	85	113	27	150	6
5	74,606	7,661	1,764	977	132	576	708	3,216	2,649	4,444	1,638	5,950	277
6	67,401	7,262	1,859	925	256	376	632	3,793	2,585	4,392	1,772	5,906	159
7	7,205	399	.....	52	.....	200	76	.....	64	52	.....	44	118
8	.....	.....	95	.....	124	.....	.....	577	.....	.....	134	.....	.....
9	†12.22	†1.25	28.90	16.01	18.64	81.35	.....	.....	43.40	72.81	26.83	97.49	4.53

*In addition there were set out 544 shrubs and 15,981 plants.
†To each school.

THE PUBLIC

V. TABLE E—FINANCIAL

Rural Schools	Receipts				
	Legislative Grants	Municipal Grants	Assessments levied on requisition of the Trustees	Clergy Reserve Fund, balances and other sources	Total receipts for all Public School purposes
	$ c.	$ c.	$ c.	$ c.	$ c.
1 Brant	6,158 78	23,726 03	42,611 74	51,851 76	124,348 31
2 Bruce	15,442 96	53,100 23	67,907 92	88,445 78	224,896 89
3 Carleton	10,582 36	41,668 96	67,440 47	54,753 43	174,445 22
4 Dufferin	7,024 31	27,600 00	37,474 85	31,968 10	104,067 26
5 Dundas	8,922 81	25,492 17	34,298 65	21,159 81	89,873 44
6 Elgin	8,396 17	36,587 49	54,177 76	74,631 96	173,793 38
7 Essex	8,054 60	36,608 18	62,675 04	86,966 72	194,304 54
8 Frontenac	20,082 27	36,521 35	31,212 01	52,348 69	140,164 32
9 Glengarry	6,283 38	23,232 50	23,802 81	13,828 09	67,146 78
10 Grey	16,658 78	71,389 79	87,279 61	88,277 86	263,606 04
11 Haldimand	5,618 20	23,515 01	29,518 83	65,890 20	124,542 24
12 Haliburton	11,385 27	10,925 21	8,946 56	10,693 02	41,950 06
13 Halton	4,264 62	18,400 26	24,721 83	34,232 87	81,619 58
14 Hastings	26,147 01	50,110 65	65,850 34	94,966 20	237,074 20
15 Huron	13,578 99	62,448 30	80,901 21	94,078 30	251,006 80
16 Kent	10,781 50	42,573 30	77,720 50	111,099 22	242,174 52
17 Lambton	11,255 90	53,807 64	75,826 31	61,547 61	202,437 46
18 Lanark	10,543 77	37,051 91	28,290 29	33,667 37	109,553 34
19 Leeds and Grenville	20,935 40	70,391 95	67,413 05	95,313 82	254,054 22
20 Lennox and Addington	12,108 78	32,895 84	27,876 75	37,852 17	110,733 54
21 Lincoln	5,931 43	23,503 99	40,923 36	48,642 86	119,001 64
22 Middlesex	13,695 62	60,576 14	92,013 21	89,184 42	255,469 39
23 Norfolk	7,458 88	32,770 22	42,664 84	60,735 36	143,629 30
24 Northumberland & Durham.	15,207 24	63,938 00	76,773 65	65,543 89	221,462 78
25 Ontario	9,356 39	39,238 30	56,848 08	41,522 16	146,964 93
26 Oxford	9,273 88	38,742 54	67,406 26	84,378 73	199,801 41
27 Peel	5,461 18	24,359 95	36,743 98	42,102 16	108,667 27
28 Perth	8,381 73	36,389 13	59,594 26	50,862 66	155,227 78
29 Peterborough	14,774 68	26,152 39	32,013 22	36,046 00	108,986 29
30 Prescott and Russell	8,520 97	33,657 81	29,518 96	36,839 74	108,537 48
31 Prince Edward	4,898 67	23,465 44	26,111 80	22,625 03	77,100 94
32 Renfrew	20,948 11	45,274 88	42,453 12	64,170 72	172,846 83
33 Simcoe	16,717 52	68,840 83	92,787 40	138,668 51	317,014 26
34 Stormont	8,502 38	24,869 10	26,730 60	26,685 76	86,787 84
35 Victoria	13,997 38	31,542 47	40,369 45	31,475 65	117,384 95
36 Waterloo	7,051 13	29,314 46	52,926 62	71,763 57	161,055 78
37 Welland	6,531 56	34,294 20	55,611 31	58,484 85	154,921 92
38 Wellington	10,315 86	45,252 81	65,207 73	76,966 62	197,743 02
39 Wentworth	9,308 33	29,919 58	75,000 29	85,260 11	199,488 31
40 York	21,887 34	74,582 72	180,970 73	227,563 72	505,004 51
41 Algoma	16,573 12	6,330 00	30,702 57	21,798 82	75,404 51
42 Kenora	2,877 03	573 60	8,029 81	3,774 88	15,255 32
43 Manitoulin	12,229 67	5,350 00	14,228 81	9,470 58	41,279 06
44 Muskoka	23,046 50	15,070 41	20,099 39	24,828 56	83,044 86
45 Nipissing	8,644 46	2,833 23	18,053 91	16,465 03	45,996 63
46 Parry Sound	28,902 22	12,102 22	36,304 61	22,873 92	100,182 97
47 Rainy River	11,816 85	5,923 27	16,774 97	6,459 90	40,974 99
48 Sudbury	11,311 33	3,743 40	35,579 62	20,112 49	70,746 84
49 Timiskaming	15,921 44	5,554 66	53,057 95	103,880 95	178,415 00
50 Thunder Bay, etc.	12,766 93	5,340 43	39,072 81	20,776 70	77,956 87
Totals	596,535 69	1,627,552 95	2,460,509 85	2,813,537 33	7,498,135 82

SCHOOLS—Continued

STATEMENT

	Expenditure					Value of school sites, buildings and furniture	Value of equipment
	Teachers' Salaries	Sites, and building school houses	Libraries, maps, apparatus, prizes and school books	Rent and repairs, fuel and other expenses	Total expenditure for all Public School purposes		
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
1	56,481 12	3,429 93	1,437 66	24,779 88	86,128 59	310,518 00	12,306 00
2	101,805 36	9,237 19	5,384 95	36,073 57	152,501 07	279,800 00	24,550 00
3	90,251 05	7,076 48	4,369 50	35,594 53	137,291 56	392,847 00	16,559 00
4	53,182 68	3,725 20	1,451 09	14,056 05	72,415 02	124,341 00	22,194 00
5	51,058 57	3,113 18	2,958 99	13,664 42	70,795 16	121,938 00	13,696 00
6	71,004 62	4,576 85	3,201 67	31,133 66	109,916 80	255,551 00	23,918 00
7	76,656 92	35,540 02	3,163 95	33,370 86	148,731 75	298,830 00	20,800 00
8	66,804 39	3,712 55	5,274 86	18,542 72	94,334 52	159,685 00	15,765 00
9	43,299 56	1,738 88	3,229 22	7,101 46	55,369 22	111,110 00	7,918 00
10	132,074 96	16,024 95	2,004 77	39,458 85	189,563 53	400,134 00	29,362 00
11	45,026 63	28,100 71	748 29	10,969 46	84,845 09	167,300 00	12,346 00
12	23,162 46	2,865 75	539 32	4,774 22	31,341 75	47,450 00	4,880 00
13	36,768 80	7,326 59	699 80	12,667 55	57,462 74	134,390 00	8,410 00
14	105,886 28	10,927 32	3,042 51	29,441 56	149,297 67	280,342 00	26,195 00
15	119,418 99	9,583 99	4,472 07	46,747 92	180,222 97	336,110 00	24,973 00
16	89,369 18	26,701 55	3,543 00	28,269 99	147,883 72	416,500 00	23,042 00
17	106,624 60	6,488 95	3,101 13	32,157 12	148,371 80	293,225 00	22,990 00
18	61,590 91	3,371 66	2,771 49	13,475 71	81,209 77	135,295 00	12,660 00
19	121,377 43	17,145 42	4,522 43	30,024 23	173,069 51	335,175 00	31,460 00
20	56,643 74	2,362 74	1,228 39	14,846 55	75,081 42	132,199 00	10,649 00
21	47,403 75	4,619 22	1,510 95	19,641 21	73,175 13	270,835 00	16,058 00
22	120,010 58	10,697 87	4,401 05	41,774 21	176,883 71	420,024 00	26,568 00
23	60,655 58	5,318 20	903 00	15,668 23	82,545 01	219,805 00	12,922 00
24	122,692 00	6,839 49	4,840 56	28,717 73	163,089 98	352,240 00	20,005 00
25	77,132 35	7,416 59	2,433 93	24,307 34	111,290 21	226,308 00	17,626 00
26	81,219 75	5,415 11	2,851 88	35,624 63	125,111 37	333,144 00	18,693 00
27	50,005 44	4,453 13	1,901 87	21,018 83	77,379 27	182,895 00	11,717 00
28	73,640 55	5,072 97	2,067 15	22,370 42	103,150 09	249,900 00	21,455 00
29	56,163 33	6,028 31	2,302 66	12,173 89	76,668 19	128,840 00	6,190 00
30	51,503 28	2,882 53	2,052 97	15,527 16	71,965 94	242,358 00	9,442 00
31	42,846 78	1,934 68	1,384 40	9,249 69	55,415 55	94,800 00	12,780 00
32	82,596 38	7,664 25	4,031 70	21,246 17	115,538 50	199,065 00	19,169 00
33	134,452 64	36,186 26	5,078 59	33,547 10	209,264 59	394,885 00	36,197 00
34	46,699 12	4,778 23	2,052 71	11,251 45	64,781 51	107,339 00	11,864 00
35	65,179 61	1,745 39	3,457 37	20,379 40	90,761 77	188,219 00	13,538 00
36	62,365 03	4,075 16	1,726 21	18,155 78	86,322 18	207,800 00	11,275 00
37	61,967 12	13,037 92	1,302 65	18,621 53	94,929 *22	304,375 00	10,045 00
38	92,593 42	6,462 87	1,406 14	28,669 14	129,131 57	293,495 00	24,550 00
39	83,673 90	18,751 41	1,804 40	31,425 50	125,655 21	441,699 00	22,619 00
40	184,250 50	64,631 39	8,779 44	83,054 02	340,715 35	1,393,755 00	31,175 00
41	40,586 56	8,852 88	2,079 45	10,033 83	61,552 72	104,908 00	8,812 00
42	8,665 68	1,061 28	533 52	3,294 06	13,554 54	13,750 00	2,225 00
43	23,274 20	1,427 91	1,756 92	5,383 86	31,842 89	45,790 00	4,386 00
44	44,823 09	2,416 92	922 21	12,773 28	60,935 50	106,715 00	10,206 00
45	23,515 50	10,813 94	534 61	5,751 35	40,615 40	60,242 00	3,748 00
46	58,731 52	5,755 34	2,365 45	13,515 99	80,368 30	128 413 00	14,557 00
47	23,474 07	2,912 46	483 43	7,182 62	34,052 58	57,802 00	4,467 00
48	34,546 75	4,562 69	1,346 32	11,092 54	51,548 30	76,326 00	4,583 00
49	43,894 19	84,723 20	2,614 98	20,491 36	151,723 73	227,081 00	7,808 00
50	35,356 69	8,623 27	3,218 12	21,120 73	68,318 81	88,013 00	8,910 00
	3,432,406 61	552,210 78	129,299 73	1,100,213 30	5,214,130 48	11,893,561 00	788,263 00

THE PUBLIC

V. TABLE E—FINANCIAL

Cities	Receipts			
	Legislative Grants	Municipal Grants and Assessments	Clergy Reserve Fund, balances and other sources	Total receipts for all Public School purposes
	$ c.	$ c.	$ c.	$ c.
1 Belleville	1,900 00	41,589 45	4,110 12	47,599 57
2 Brantford	3,623 77	88,545 00	4,858 87	97,027 64
3 Chatham	1,537 00	65,865 44	3,067 96	70,470 40
4 Fort William	5,253 50	88,136 17	644 30	94,033 97
5 Galt	1,254 00	48,500 00	1,391 55	51,145 55
6 Guelph	2,226 55	53,969 53	547 32	56,743 40
7 Hamilton	14,147 70	574,752 58	16,164 10	605,064 38
8 Kingston	4,050 00	64,100 00	3,505 88	71,655 88
9 Kitchener	1,819 00	66,819 00	6,216 86	74,854 86
10 London	15,118 75	317,031 58	4,534 83	336,685 16
11 Niagara Falls	1,201 00	38,666 00	1,842 42	41,709 42
12 Ottawa	11,668 33	358,980 36	28,830 05	399,478 74
13 Peterborough	2,502 98	68,800 00	7,813 46	79,116 44
14 Port Arthur	4,014 22	56,700 00	2,352 88	63,067 10
15 St. Catharines	1,947 41	90,299 90	6,160 78	98,408 09
16 St. Thomas	2,003 20	62,602 64	1,628 66	66,234 50
17 Sarnia	1,969 50	96,990 59	3,228 75	102,188 84
18 Sault Ste. Marie	1,800 80	68,601 02	3,697 69	74,099 51
19 Stratford	2,889 50	88,597 45	2,358 88	93,845 83
20 Toronto	75,082 16	2,727,092 12	421,257 18	3,223,431 46
21 Welland	971 00	30,000 00	18,253 76	49,224 76
22 Windsor	3,700 50	90,255 99	19,246 86	113,203 35
23 Woodstock	1,397 49	28,000 00	2,679 51	32,077 00
Totals	162,078 36	5,214,894 82	564,392 67	5,941,365 85
Towns				
1 Alexandria	36 00	1,855 54	299 87	2,191 41
2 Alliston	160 00	3,273 38	1,118 77	4,552 15
3 Almonte	211 00	5,610 25	1,027 59	6,848 84
4 Amherstburg	104 00	4,696 00	700 71	5,500 71
5 Arnprior	315 00	8,502 36	2,526 57	11,343 93
6 Aurora	277 00	6,660 00	69 37	6,946 37
7 Aylmer	322 00	6,805 84	1,718 15	8,845 99
8 Bala	298 22	5,150 50	427 97	5,876 69
9 Barrie	762 00	24,674 94	718 58	26,155 52
10 Blenheim	161 00	5,294 86	497 23	5,953 09
11 Blind River	423 22	3,590 45	431 24	4,444 91
12 Bonfield	460 10	275 85	408 21	1,144 16
13 Bothwell	102 00	1,185 18	37 20	1,324 38
14 Bowmanville	394 00	8,300 00	22 75	8,716 75
15 Bracebridge	781 22	8,833 99	68 04	9,683 25
16 Brampton	472 00	12,133 32	2,047 74	14,653 06
17 Bridgeburg	221 00	19,277 89	787 00	20,285 89
18 Brockville	1,480 00	30,500 00	117 98	32,097 98
19 Bruce Mines	418 47	19,026 89	689 16	20,134 52
20 Burlington	266 00	7,490 53	136 95	7,893 48
21 Cache Bay	684 12	2,100 00	113 60	2,897 72
22 Campbellford	441 00	13,855 36	336 29	14,632 65
23 Carleton Place	454 00	10,988 46	109 42	11,551 88
24 Charlton	424 22	1,741 57	111 68	2,277 47
25 Chesley	235 00	5,356 42	1,349 05	6,940 47
26 Clinton	1,275 00	5,500 00	69 91	6,844 91
27 Cobalt	1,163 72	28,567 77	3,335 98	33,067 47
28 Cobourg	443 00	10,845 54	169 01	11,457 55
29 Cochrane	502 22	6,549 14	1,063 64	8,115 00
30 Collingwood	1,338 31	23,503 39	812 25	25,653 95
31 Copper Cliff	949 72	8,056 68	10,098 06	19,104 46
32 Cornwall	1,403 50	13,374 35	1,217 36	15,995 21

SCHOOLS—Continued

STATEMENT—Continued

	Expenditure						
	Teachers' Salaries	Sites, and building school houses	Libraries, maps, apparatus and other equipment, prizes and school books	Rent and repairs, fuel and other expenses	Total expenditure for all Public School purposes	Value of school sites, buildings and furniture	Value of equipment
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
1	24,142 82	.....	.....	16,479 96	40,622 78	231,000 00	3,000 00
2	64,639 96	1,148 60	2,858 61	27,559 59	96,206 76	387,075 00	49,549 00
3	30,683 66	25,293 19	582 19	9,669 17	66,228 21	240,000 00	4,000 00
4	65,964 94	714 54	5,159 88	20,977 61	92,816 97	610,980 00	22,968 00
5	31,497 42	2,187 21	476 41	13,382 90	47,543 94	265,000 00	8,000 00
6	40,696 44	135 08	165 88	14,759 75	55,757 15	181,000 00	2,450 00
7	280,146 89	146,203 48	12,430 72	134,696 16	573,477 25	1,795,338 00	44,683 00
8	48,563 48	278 07	671 00	20,859 01	70,371 56	275,000 00	3,900 00
9	42,291 66	15,386 65	3,164 52	13,088 84	73,931 67	297,000 00	15,000 00
10	182,431 63	41,565 09	1,312 60	108,075 54	333,384 86	1,169,544 00	55,000 00
11	25,803 23	3,242 30	613 79	11,233 59	40,892 91	174,100 00	2,300 00
12	269,327 37	8,649 44	.....	115,501 95	393,478 76	1,391,781 00	100,756 00
13	54,387 19	600 00	4,304 84	19,824 41	79,116 44	321,405 00	17,000 00
14	42,768 06	367 94	3,276 66	15,916 13	62,328 79	450,000 00	2,978 00
15	37,241 35	44,291 95	512 07	13,082 65	95,128 02	361,300 00	2,075 00
16	40,496 11	341 95	410 70	15,862 85	57,111 61	150,000 00	9,500 00
17	26,415 02	63,569 69	327 63	9,158 51	99,479 85	220,000 00	2,204 00
18	37,740 60	9,110 34	2,800 98	24,430 46	74,082 38	312,100 00	4,000 00
19	36,196 19	37,058 50	4,683 57	14,184 55	92,122 81	200,000 00	15,000 00
20	1,616,233 03	425,599 42	63,080 20	755,706 26	2,860,618 91	10,417,410 00	82,500 00
21	20,462 55	.....	301 60	10,796 49	31,560 64	122,262 00	1,438 00
22	67,653 50	1,516 59	3,936 39	24,388 34	97,494 82	422,028 00	22,800 00
23	22,721 13	.....	2,168 25	7,027 02	31,916 40	130,000 00	6,000 00
	3,108,504 23	827,260 03	113,238 49	1,416,661 74	5,465,664 49	20,124,323 00	477,101 00
1	1,230 00	256 49	41 16	381 58	1,909 23	4,000 00	500 00
2	3,190 36	.....	.....	1,233 03	4,423 39	35,000 00	500 00
3	4,840 28	.....	68 61	1,509 45	6,418 34	14,630 00	596 00
4	3,527 33	.....	6 00	1,446 51	4,979 84	23,000 00	500 00
5	7,286 00	78 70	19 20	2,030 59	9,414 49	17,300 00	400 00
6	5,398 67	322 90	13 45	1,086 97	6,821 99	25,000 00	1,000 00
7	5,831 85	648 79	35 12	1,571 33	8,087 09	19,500 00	400 00
8	765 00	4,170 13	3 66	460 79	5,399 58	9,000 00	165 00
9	17,635 51	.....	61 25	6,910 09	24,606 85	97,800 00	3,050 00
10	3,499 92	719 17	116 81	824 25	5,160 15	19,000 00	100 00
11	2,872 00	.....	72 83	949 35	3,894 18	10,000 00	233 00
12	600 00	.....	10 25	32 74	642 99	Rented	166 00
13	1,056 01	.....	.....	214 37	1,270 38	10,500 00	100 00
14	6,355 00	348 45	.....	1,852 21	8,555 66	27,000 00	573 00
15	6,745 00	32 40	.....	2,905 61	9,683 01	25,700 00	465 00
16	8,666 18	831 78	.....	4,845 10	14,343 06	46,500 00	185 00
17	4,275 50	13,998 41	72 23	1,831 62	20,177 76	42,800 00	1,000 00
18	21,565 44	998 00	264 00	6,842 10	29,669 54	79,000 00	2,000 00
19	2,154 48	15,726 89	.....	1,795 78	19,677 15	30,000 00	300 00
20	5,016 66	140 87	105 89	2,439 86	7,703 28	35,000 00	1,100 00
21	1,978 50	.....	.....	727 57	2,706 07	4,000 00	285 00
22	7,491 17	4,155 20	509 48	1,841 72	13,997 57	27,000 00	1,200 00
23	8,175 24	1,057 09	.....	2,110 02	11,342 35	39,000 00	500 00
24	1,510 00	.....	94 00	156 41	1,760 41	4,800 00	175 00
25	4,083 94	2 55	45 62	2,337 92	6,470 03	25,000 00	358 00
26	5,604 60	25	52 70	1,046 11	6,703 66	19,500 00	860 00
27	16,823 09	2,798 01	1,656 39	9,525 00	30,802 49	71,000 00	10,500 00
28	8,338 42	300 00	.....	2,819 13	11,457 55	40,000 00	3,000 00
29	4,273 18	282 40	60 86	2,828 09	7,444 53	36,000 00	500 00
30	17,503 42	1,743 07	5 37	6,263 26	25,515 12	91,863 00	10,300 00
31	9,857 80	1,062 70	24 14	3,875 12	14,819 76	58,500 00	500 00
32	10,292 56	1,839 00	9 70	2,988 19	15,129 45	46,000 00	4,000 00

THE PUBLIC
V. TABLE E—FINANCIAL

Towns—Continued	Receipts			
	Legislative Grants	Municipal Grants and Assessments	Clergy Reserve Fund, balances and other sources	Total receipts for all Public School purposes
	$ c.	$ c.	$ c.	$ c.
33 Deseronto	247 00	5,610 23	48 07	5,905 30
34 Dresden	203 00	4,010 36	178 36	4,391 72
35 Dryden	479 47	4,418 92	10 17	4,908 56
36 Dundas	523 00	12,600 00	484 58	13,607 58
37 Dunnville	369 00	2,000 00	5,422 76	7,791 76
38 Durham	189 00	4,756 49	354 69	5,300 18
39 Eastview	.....	10,079 19	3,660 30	13,739 49
40 Englehart	430 47	3,139 14	26 63	3,596 24
41 Essex	178 00	10,329 54	741 03	11,248 57
42 Ford	74 00	19,715 38	3,467 86	23,257 24
43 Forest	191 50	5,136 00	259 70	5,587 20
44 Fort Frances	602 22	11,467 35	563 80	12,633 37
45 Frood Mine	298 72	120 00	595 59	1,014 31
46 Gananoque	398 40	11,270 94	515 68	12,185 02
47 Goderich	534 00	13,258 47	171 95	13,964 42
48 Gore Bay	456 22	2,808 26	187 72	3,452 20
49 Gravenhurst	581 22	7,793 39	529 59	8,904 20
50 Haileybury	720 22	15,700 00	560 83	16,981 05
51 Hanover	329 00	8,178 60	1,071 36	9,578 96
52 Harriston	156 00	4,010 56	.....	4,166 56
53 Hawkesbury	87 00	2,409 18	3,145 47	5,641 65
54 Hespeler	530 47	11,232 85	50 00	11,813 32
55 Huntsville	690 22	6,800 00	329 75	7,819 97
56 Ingersoll	654 58	15,379 55	1,193 61	17,227 74
57 Iroquois Falls	454 72	3,250 30	2,938 12	6,643 14
58 Kearney	566 99	1,126 13	545 91	2,239 03
59 Keewatin	544 22	5,667 22	1,025 76	7,237 20
60 Kenora	1,181 22	19,207 50	378 51	20,767 23
61 Kincardine	261 00	5,700 00	746 25	6,707 25
62 Kingsville	428 54	7,198 15	49 73	7,676 42
63 Latchford	309 72	1,100 00	154 05	1,563 77
64 Leamington	402 00	9,850 00	5 21	10,257 21
65 Lindsay	695 00	21,293 64	911 85	22,900 49
66 Listowel	319 92	19,936 63	261 55	20,518 10
67 Little Current	458 42	3,343 78	1,055 61	4,857 81
68 Massey	786 02	2,632 10	26 19	3,444 31
69 Matheson	.....	1,997 13	244 44	2,241 57
70 Mattawa	306 72	833 87	2,427 69	3,568 28
71 Meaford	358 00	10,900 00	948 38	12,206 38
72 Midland	744 00	26,780 00	1,740 38	29,264 38
73 Milton	249 00	5,100 16	37 53	5,386 69
74 Mimico	324 00	12,153 88	657 15	13,135 03
75 Mitchell	229 00	5,680 62	183 65	6,093 27
76 Mount Forest	189 00	4,700 00	47 26	4,936 26
77 Napanee	419 00	9,020 00	595 09	10,034 09
78 New Liskeard	639 22	7,585 70	908 25	9,133 17
79 Newmarket	375 00	10,000 00	1,940 50	12,315 50
80 Niagara	191 00	3,550 32	330 20	4,071 52
81 North Bay	1,519 12	39,193 01	1,193 79	41,905 92
82 Oakville	.....	12,473 98	2,123 94	14,597 92
83 Orangeville	305 00	7,589 60	419 98	8,314 58
84 Orillia	1,880 00	28,000 00	22,872 11	52,752 11
85 Oshawa	972 00	32,756 38	4,904 87	38,633 25
86 Owen Sound	1,588 00	39,735 00	6,305 05	47,628 05
87 Palmerston	198 00	5,438 92	33 73	5,670 65
88 Paris	844 10	11,160 00	868 69	12,872 79
89 Parkhill	124 00	2,900 00	230 51	3,254 51
90 Parry Sound	1,266 22	14,208 34	30,246 52	45,721 08

SCHOOLS—Continued
STATEMENT—Continued

	Expenditure						
	Teachers' Salaries	Sites, and building school houses	Libraries, maps, apparatus and other equipment, prizes and school books	Rent and repairs, fuel, and other expenses	Total expenditure for all Public School purposes	Value of school sites, buildings and furniture	Value of equipment
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
33	4,587 38	.....	29 98	901 81	5,519 17	12,225 00	1,775 00
34	3,053 58	.....	.....	1,229 94	4,283 52	25,000 00	4,000 00
35	3,148 01	62 95	51 88	1,319 27	4,582 11	rented	.....
36	9,960 48	402 30	14 84	2,879 52	13,257 14	35,000 00	3,490 00
37	5,928 14	93 00	69 94	1,134 94	7,226 02	28,000 00	1,000 00
38	3,477 66	18 00	24 00	1,174 78	4,694 44	12,000 00	235 00
39	4,928 13	4,448 01	334 93	3,508 40	13,219 47	45,200 00	250 00
40	2,188 81	101 90	46 88	1,174 45	3,512 04	8,000 00	2,000 00
41	4,712 56	4 50	.....	5,266 90	9,983 96	15,000 00	200 00
42	2,114 10	17,538 70	1,047 07	2,370 46	23,070 33	45,000 00	150 00
43	3,847 00	.....	17 27	1,211 13	5,075 40	25,000 00	330 00
44	5,869 50	83 99	1,500 00	4,047 74	11,501 23	75,000 00	1,000 00
45	620 00	.....	.....	217 00	837 00	4,000 00	60 00
46	8,334 15	784 00	57 42	2,724 64	11,900 21	14,500 00	1,500 00
47	9,037 13	.....	30 00	4,529 23	13,596 36	45,000 00	1,650 00
48	2,876 83	.....	.....	486 88	3,363 71	5,000 00	149 00
49	4,505 45	1,381 05	.....	2,625 98	8,512 48	18,000 00	510 00
50	8,673 59	4,271 95	25 91	3,793 35	16,764 80	38,000 00	2,700 00
51	6,774 30	.....	24 67	2,411 96	9,210 93	25,500 00	1,000 00
52	3,015 79	39 75	63 66	1,022 82	4,142 02	20,000 00	2,000 00
53	2,488 18	43 75	47 33	502 12	3,081 38	10,000 00	1,000 00
54	8,311 12	495 95	.....	2,212 29	11,019 36	35,850 00	3,000 00
55	5,164 89	465 09	61 11	1,629 98	7,321 07	25,000 00	800 00
56	10,778 40	.....	91 85	4,761 38	15,631 63	100,000 00	1,000 00
57	2,636 36	1,709 05	743 24	1,466 27	6,554 92	rented	500 00
58	1,164 13	63 94	.....	540 51	1,768 58	3,325 00	104 00
59	4,820 67	133 88	3 95	2,151 21	7,109 71	18,760 00	721 00
60	14,945 69	.....	4 90	5,340 12	20,290 71	51,000 00	4,000 00
61	4,637 50	.....	.....	1,480 99	6,118 49	26,500 00	3,500 00
62	5,864 37	200 25	117 70	969 24	7,151 56	25,000 00	700 00
63	817 50	30 19	.....	533 86	1,381 55	9,000 00	150 00
64	8,099 73	12 60	118 22	1,822 36	10,052 91	34,000 00	2,500 00
65	15,793 32	225 93	414 23	6,131 07	22,564 55	105,000 00	2,500 00
66	5,037 45	13,007 59	144 47	1,838 86	20,028 37	35,000 00	500 00
67	2,541 38	1,385 96	337 38	453 85	4,718 57	3,500 00	305 00
68	2,533 00	77 87	.....	800 95	3,411 82	3,610 00	330 00
69	987 60	1,055 48	.....	187 55	2,230 63	3,850 00	600 00
70	783 00	.....	.....	171 45	954 45	2,600 00	163 00
71	7,648 46	185 13	171 65	2,533 11	10,538 35	12,000 00	1,000 00
72	18,944 71	522 56	15 00	8,550 64	28,032 91	120,000 00	2,500 00
73	4,393 41	44 08	47 88	734 71	5,220 08	30,000 00	1,000 00
74	7,687 56	2,165 10	65 94	2,331 60	12,250 20	55,000 00	1,000 00
75	4,480 72	134 30	58 99	1,102 77	5,776 78	33,000 00	300 00
76	3,330 28	.....	.....	1,408 53	4,738 81	14,500 00	2,500 00
77	7,671 90	191 46	.....	1,929 15	9,792 51	21,000 00	3,000 00
78	6,311 38	.....	11 71	2,557 85	8,880 94	27,000 00	430 00
79	8,038 75	.....	63 26	1,932 64	10,034 65	64,000 00	2,500 00
80	2,695 91	.....	115 02	1,222 89	4,033 82	10,000 00	2,500 00
81	22,531 40	71 80	53 10	16,517 77	39,174 07	165,000 00	12,000 00
82	7,010 00	3,951 26	169 33	1,777 62	12,908 21	44,000 00	750 00
83	6,589 00	.....	45 24	1,313 69	7,947 93	12,500 00	2,362 00
84	19,792 29	2,490 53	153 91	7,563 70	30,000 43	89,200 00	800 00
85	25,587 00	1,197 90	781 35	10,790 74	38,356 99	130,000 00	5,000 00
86	32,820 00	2,943 71	290 63	11,573 71	47,628 05	123,300 00	8,500 00
87	3,335 13	112 50	161 48	1,976 25	5,585 36	29,000 00	1,000 00
88	8,404 00	.....	95 41	3,262 55	11,761 96	65,000 00	2,000 00
89	2,379 00	.....	33 15	661 95	3,074 10	7,000 00	300 00
90	11,794 62	30,767 21	199 78	2,837 14	45,598 75	20,000 00	3,000 00

THE PUBLIC

V. TABLE E—FINANCIAL

Towns—Concluded	Receipts			
	Legislative Grants	Municipal Grants and Assessments	Clergy Reserve Fund, balances and other sources	Total receipts for all Public School purposes
	$ c.	$ c.	$ c.	$ c.
91 Pembroke	550 00	58,898 96	4,825 48	64,274 44
92 Penetanguishene	635 00	14,967 93	729 27	16,332 20
93 Perth	260 00	6,568 76	1,648 82	8,477 58
94 Petrolia	451 60	11,500 00	81 44	12,033 04
95 Picton	396 00	9,712 52	955 78	11,064 30
96 Port Hope	543 00	12,371 31	556 31	13,470 62
97 Powassan	412 72	2,400 00	264 99	3,077 71
98 Prescott	261 00	6,515 46	128 51	6,904 97
99 Preston	502 00	15,000 00	441 50	15,943 50
100 Rainy River	956 72	7,625 00	28 54	8,610 26
101 Renfrew	1,529 00	11,014 98	1,625 99	14,169 97
102 Ridgetown	271 00	4,710 00	138 05	5,119 05
103 Rockland	67 00	1,499 41	127 40	1,693 81
104 St. Mary's	443 50	11,585 13	5 00	12,033 63
105 Sandwich	128 00	11,455 93	3,625 74	15,209 67
106 Seaforth	240 00	5,071 66	1,188 78	6,500 44
107 Simcoe	463 00	29,384 63	293 59	30,141 22
108 Sioux Lookout	393 97	3,337 53	3,662 50	7,394 00
109 Smith's Falls	751 00	23,186 14	9 00	23,946 14
110 Southampton	180 00	5,276 01	692 27	6,148 28
111 Stayner	123 00	2,500 00	2,204 34	4,827 34
112 Steelton	1,122 72	23,950 00	158 20	25,230 92
113 Strathroy	350 00	7,861 87	106 18	8,318 05
114 Sturgeon Falls	459 22	3,095 00	4,127 23	7,681 45
115 Sudbury	686 12	27,172 00	12,255 27	40,113 39
116 Thessalon	584 72	5,003 77	384 06	5,972 55
117 Thornbury	91 00	2,537 25	24 14	2,652 39
118 Thorold	372 80	9,338 03	760 25	10,471 08
119 Tilbury	80 00	2,030 06	1,350 03	3,460 09
120 Tillsonburg	415 00	9,784 54	224 35	10,423 89
121 Timmins	454 22	54,262 27	336 95	55,053 44
122 Trenton	469 00	12,900 00	2,826 94	16,195 94
123 Trout Creek	386 38	1,160 00	112 53	1,658 91
124 Uxbridge	224 00	5,000 00	64 09	5,288 09
125 Vankleek Hill	115 00	3,071 95	3,252 39	6,439 34
126 Walkerton	217 00	5,630 45	105 64	5,953 09
127 Walkerville	1,145 00	25,500 00	1,146 28	27,791 28
128 Wallaceburg	337 00	8,667 75	1,801 43	10,806 18
129 Waterloo	491 00	18,520 41	859 57	19,870 98
130 Webbwood	401 96	2,256 49	19 31	2,677 76
131 Weston	257 00	11,003 28	1,428 18	12,688 46
132 Whitby	270 00	8,600 00	207 92	9,077 92
133 Wiarton	245 00	5,924 53	51 50	6,221 03
134 Wingham	311 00	5,457 04	676 71	6,444 75
Totals	64,071 55	1,411,111 26	199,077 73	1,674,260 54
Totals				
1 Rural Schools	596,535 69	4,088,062 80	2,813,537 33	7,498,135 82
2 Cities	162,078 36	5,214,894 82	564,392 67	5,941,365 85
3 Towns	64,071 55	1,411,111 26	199,077 73	1,674,260 54
4 Villages	22,033 79	413,116 96	220,646 10	655,796 85
5 Grand Totals, 1917	844,719 39	11,127,185 84	3,797,653 83	15,769,559 06
6 Grand Totals, 1916	786,152 04	10,110,417 89	3,769,978 64	14,666,548 57
7 Increases	58,567 35	1,016,767 95	27,675 19	1,103,010 49
8 Decrease				
9 Percentages	5.35	70.56	24.08	

Cost per pupil, enrolled attendance: Rural Schools, $25.46;

SCHOOLS—Concluded

STATEMENT—Concluded

	Expenditure							
	Teachers' Salaries	Sites, and building school houses	Libraries, maps, apparatus and other equipment, prizes and school books	Rent and repairs, fuel and other expenses	Total expenditure for all Public School purposes	Value of school sites, buildings and furniture	Value of equipment
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
91	12,359 10	42,710 32	234 45	5,387 39	60,691 26	92,700 00	349 00
92	10,718 92	348 72	61 66	4,469 53	15,598 83	53,000 00	725 00
93	6,179 10	79 22	225 17	1,837 84	8,321 33	34,500 00	500 00
94	8,436 59	.....	218 54	2,172 93	10,828 06	43,000 00	3,000 00
95	7,399 18	.....	122 91	2,860 73	10,382 82	21,000 00	4,565 00
96	9,172 08	295 30	14 00	2,850 01	12,331 39	61,190 00	800 00
97	2,400 00	.....	33 15	322 74	2,755 89	8,500 00	178 00
98	4,739 93	79 50	129 73	1,730 63	6,679 79	20,912 00	433 00
99	11,497 29	480 90	21 43	3,510 68	15,510 30	120,000 00	5,000 00
100	5,548 63	1,131 71	.....	1,791 44	8,471 78	26,000 00	404 00
101	8,951 16	72 60	.....	4,944 59	13,968 35	53,000 00	500 00
102	3,966 38	26 00	.....	893 70	4,886 08	30,000 00	5,000 00
103	1,251 47	.....	35 95	256 82	1,544 24	2,450 00	127 00
104	7,736 82	23 60	.....	4,053 08	11,813 50	60,000 00	700 00
105	4,721 39	198 88	.....	2,923 59	7,843 86	75,000 00	1,500 00
106	4,313 80	.....	43 48	799 68	5,156 96	15,000 00	400 00
107	8,372 13	18,321 83	.....	3,420 70	30,114 66	45,000 00	513 00
108	2,841 76	814 33	.....	.....	3,656 09	16,000 00	600 00
109	16,036 24	1,260 81	51 75	6,282 96	23,631 76	120,000 00	8,000 00
110	4,087 66	400 00	49 55	1,333 49	5,870 70	22,000 00	2,150 00
111	2,375 00	91 30	60 99	622 00	3,149 29	14,500 00	176 00
112	15,948 09	159 93	.....	9,078 88	25,186 90	80,400 00	750 00
113	6,139 77	516 87	58 60	1,583 03	8,298 27	30,000 00	462 00
114	3,355 00	1,162 41	60 17	1,696 70	6,274 28	25,000 00	500 00
115	13,253 17	13,531 42	122 82	6,769 40	33,676 81	125,850 00	650 00
116	4,470 23	88 73	93 60	977 64	5,630 20	27,300 00	364 00
117	1,802 88	25 00	15 00	570 89	2,413 77	2,400 00	155 00
118	6,112 59	527 27	27 95	3,557 67	10,225 48	46,000 00	7,000 00
119	1,633 83	68 85	.....	331 01	2,033 69	12,500 00	197 00
120	7,379 47	547 31	418 88	1,911 35	10,257 01	45,000 00	5,000 00
121	5,837 00	43,948 00	.....	3,887 43	53,672 43	45,000 00	3,500 00
122	10,331 34	.....	.....	5,263 46	15,594 80	29,000 00	2,350 00
123	1,280 62	.....	53 91	178 37	1,512 90	3,050 00	261 00
124	4,134 00	.....	.....	1,094 52	5,228 52	20,000 00	1,000 00
125	2,452 43	.....	20 54	580 75	3,053 72	10,000 00	1,000 00
126	4,225 01	368 99	46 60	1,280 27	5,920 87	20,000 00	2,750 00
127	18,350 69	364 55	204 27	8,510 81	27,430 32	17,500 00	6,300 00
128	7,385 45	115 00	90 40	2,932 16	10,523 01	40,000 00	410 00
129	11,677 52	2,125 99	863 59	4,269 92	18,937 02	47,000 00	4,600 00
130	1,760 31	.....	39 90	666 15	2,466 36	9,300 00	300 00
131	8,114 15	491 15	60 00	2,751 51	11,416 81	65,000 00	500 00
132	6,104 00	277 90	117 85	2,578 17	9,077 92	21,000 00	3,000 00
133	5,192 70	41 72	10 95	830 16	6,075 53	14,000 00	300 00
134	4,519 53	.....	46 70	1,764 77	6,331 00	25,000 00	350 00
	909,509 92	275,124 53	14,958 87	352,815 69	1,552,409 01	4,780,365 00	221,644 00
1	3,432,406 61	552,210 78	129,299 73	1,100,213 36	5,214,130 48	11,893,561 00	788,263 00
2	3,108,504 23	827,260 03	113,238 49	1,416,661 74	5,465,664 49	20,124,323 00	477,101 00
3	909,509 92	275,124 53	14,958 87	352,815 69	1,552,409 01	4,780,365 00	221,644 00
4	312,940 25	70,946 05	7,873 98	174,147 69	565,907 97	1,552,265 00	68,038 00
5	7,763,361 01	1,725,541 39	265,371 07	3,043,838 48	12,798,111 95	38,350,514 00	1,555,046 00
6	7,393,829 08	1,836,820 96	174,503 04	2,703,422 51	12,108,575 59	.....	.....
7	369,531 93	.....	90,868 03	340,415 97	689,536 36	.....	.....
8	.....	111,279 57	.....	.....	.....	.....	.....
9	60.66	13.48	2.07	23.78	.....	.....	.....

Cities, $34.08 ; Towns, $22.89 ; Villages, $22.94 ; Province, $27.96

ROMAN CATHOLIC
I. TABLE F—FINANCIAL

Rural Schools	Receipts			
	Legislative Grants	Municipal Grants and Assessments	Balances, subscribed and other sources	Total amount received
	$ c.	$ c.	$ c.	$ c.
1 Bruce	1,010 37	8,956 65	5,351 80	15,318 82
2 Carleton	896 20	11,007 49	4,048 76	15,952 45
3 Essex	3,790 82	23,404 70	16,097 81	43,293 33
4 Frontenac	2,985 24	5,589 09	2,534 69	11,109 02
5 Grey	746 70	4,438 44	2,131 66	7,316 80
6 Hastings	1,329 44	3,049 64	2,058 72	6,437 80
7 Huron	1,649 40	6,579 01	2,414 61	10,643 02
8 Kent	666 45	4,833 89	3,793 93	9,294 27
9 Lambton	43 66	660 25	560 79	1,264 70
10 Lanark	673 79	1,542 28	422 66	2,638 73
11 Leeds and Grenville	494 77	485 67	314 38	1,294 82
12 Lennox and Addington	396 52	567 98	581 71	1,546 21
13 Middlesex	425 60	3,154 38	1,998 96	5,578 94
14 Norfolk	116 56	765 84	468 00	1,350 40
15 Northumberland and Durham	1,539 21	2,560 38	647 10	4,746 69
16 Ontario	116 56	420 20	1,258 33	1,795 09
17 Peel	67 96	589 32	329 27	986 55
18 Perth	1,484 08	6,599 97	4,479 54	12,563 59
19 Peterborough	257 47	1,638 17	664 04	2,559 68
20 Prescott and Russell	.....	63,269 71	36,796 77	100,066 48
21 Renfrew	5,329 92	9,973 12	9,830 46	25,133 50
22 Simcoe	644 06	5,946 65	2,100 18	8,690 89
23 Stormont, Dundas & Glengarry	3,029 55	11,485 41	8,684 93	23,199 89
24 Victoria	200 72	1,288 47	295 22	1,784 41
25 Waterloo	651 04	6,533 15	5,327 21	12,511 40
26 Wellington	630 86	3,936 21	1,712 56	6,279 63
27 Districts	5,504 31	23,503 90	11,540 81	40,549 02
Totals	34,681 26	212,779 97	126,444 90	373,906 13
Cities				
1 Belleville	189 60	4,155 95	1,046 90	5,392 45
2 Brantford	.....	6,221 24	23,392 10	29,613 34
3 Chatham	269 80	7,433 18	10,173 14	17,876 12
4 Fort William	1,359 56	21,385 36	880 51	23,625 43
5 Galt	70 40	1,814 92	354 68	2,240 00
6 Guelph	253 00	11,246 92	949 35	12,449 27
7 Hamilton	1,887 85	38,972 97	22,696 96	63,557 78
8 Kingston	470 80	12,997 73	221 94	13,690 47
9 Kitchener	533 20	13,750 37	1,052 50	15,336 07
10 London	960 60	24,014 70	1,669 71	26,645 01
11 Niagara Falls	127 80	3,300 17	944 27	4,372 24
12 Ottawa	.....	202,438 57	5,736 13	208,174 70
13 Peterborough	787 60	14,887 66	2,375 30	18,050 56
14 Port Arthur	845 56	9,076 98	2,274 47	12,197 01
15 St. Catharines	302 00	7,789 43	321 14	8,412 57
16 St. Thomas	169 60	4,456 73	607 32	5,233 65
17 Sarnia	215 00	4,737 51	4,839 44	9,791 95
18 Sault Ste. Marie	.....	13,747 55	8,647 80	22,395 35
19 Stratford	322 95	5,927 25	3,513 65	9,763 85
20 Toronto	5,565 80	183,551 58	48,096 40	237,213 78
21 Windsor	959 80	25,438 06	4,122 43	30,520 29
22 Woodstock	107 20	1,747 05	29 00	1,883 25
Totals	15,398 12	619,091 88	143,945 14	778,435 14

SEPARATE SCHOOLS
STATEMENT, ETC.

	Expenditure						
	Teachers' Salaries	Sites and building school houses	Libraries, maps, apparatus, prizes and school books	All other purposes	Total amount expended	Value of school sites, buildings and furniture	Value of equipment
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
1	7,220 12	595 19	381 98	2,839 08	11,036 37	26,800 00	2,326 00
2	9,383 35	878 24	377 78	1,441 78	12,081 15	26,610 00	2,016 00
3	17,570 94	7,643 50	236 02	8,746 99	34,197 45	53,188 00	2,352 00
4	5,855 33	360 68	122 34	2,294 65	8,633 00	10,975 00	1,743 00
5	3,844 77	197 60	245 45	569 98	4,857 80	8,300 00	887 00
6	3,095 47	85 07	244 87	1,260 72	4,686 13	4,820 00	844 00
7	5,759 66	752 51	131 17	2,139 59	8,782 93	21,100 00	1,997 00
8	4,024 56	71 43	27 85	1,997 03	6,120 87	13,250 00	1,198 00
9	523 25	.....	4 70	113 35	641 30	900 00	333 00
10	1,535 55	89 29	126 89	402 08	2,153 81	5,200 00	253 00
11	574 57	16 90	87 92	50 92	730 31	1,393 00	243 00
12	752 09	10 54	3 81	511 19	1,277 63	2,900 00	219 00
13	2,782 70	673 00	21 31	1,065 22	4,542 23	7,875 00	562 00
14	615 00	.....	.....	186 07	801 07	4,200 00	156 00
15	3,062 13	83 20	398 89	301 40	3,845 62	9,275 00	696 00
16	665 00	30 13	.....	365 82	1,060 95	4,500 00	160 00
17	501 50	103 60	5 35	56 76	667 21	2,300 00	150 00
18	6,261 84	1,035 67	181 53	3,294 74	10,773 78	28,850 00	1,624 00
19	1,224 91	39 90	201 97	486 63	1,953 41	6,200 00	302 00
20	48,392 89	11,817 50	374 12	10,973 29	71,557 80	164,559 00	5,496 00
21	10,225 84	6,372 00	415 00	2,990 25	20,003 09	49,374 00	3,476 00
22	3,673 53	582 36	102 43	2,189 24	6,547 56	29,770 00	482 00
23	12,678 88	1,208 37	610 51	3,628 41	18,126 17	48,302 00	3,718 00
24	1,213 10	11 85	35 38	192 21	1,452 54	3,450 00	228 00
25	5,605 83	244 78	162 44	1,746 52	7,759 57	25,750 00	1,497 00
26	3,567 76	79 30	284 73	789 74	4,721 53	11,300 00	805 00
27	22,417 84	5,024 35	510 36	8,507 22	36,459 77	40,205 00	2,319 00
	183,028 41	38,006 96	5,294 80	59,140 88	285,471 05	611,346 00	36,062 00
1	2,162 51	.....	.....	2,383 24	4,545 75	50,000 00	190 00
2	2,794 50	23,588 79	225 96	2,171 06	28,780 31	55,000 00	414 00
3	3,587 90	819 23	189 50	1,429 27	6,025 90	20,000 00	1,400 00
4	10,961 50	4,103 22	899 30	6,497 78	22,461 80	240,000 00	8,000 00
5	1,615 00	200 00	25 00	400 00	2,240 00	9,700 00	232 00
6	3,651 25	5,100 00	356 84	3,094 49	12,202 58	44,000 00	1,050 00
7	20,766 81	15,673 62	2,537 99	11,690 80	50,669 22	785,000 00	5,200 00
8	6,218 55	1,057 89	211 30	5,748 06	13,235 80	48,000 00	400 00
9	6,611 25	2,488 24	265 68	4,206 72	13,571 89	80,000 00	1,433 00
10	9,933 35	5,694 85	706 47	6,461 97	22,796 64	140,000 00	6,000 00
11	1,716 84	530 45	61 31	672 94	2,981 54	10,000 00	187 00
12	98,134 66	883 90	3,638 39	105,517 75	208,174 70	461,650 00	17,163 00
13	9,769 39	63 65	1,910 09	6,307 43	18,050 56	130,000 00	3,000 00
14	5,720 00	1,745 50	98 70	4,127 60	11,691 80	60,000 00	3,000 00
15	4,075 00	1,372 32	95 72	2,385 02	7,928 06	40,000 00	2,500 00
16	1,852 50	775 53	762 96	1,526 81	4,917 80	34,000 00	940 00
17	2,423 00	4,730 29	59 39	2,536 47	9,749 15	38,000 00	1,270 00
18	7,446 96	3,153 30	.....	6,521 53	17,121 79	100,000 00	3,600 00
19	3,028 50	4,489 08	742 58	1,503 69	9,763 85	20,000 00	1,412 00
20	87,615 78	87,891 17	1,836 90	57,432 43	234,776 28	834,540 00	52,165 00
21	11,681 15	1,041 50	225 54	17,277 10	30,225 29	210,000 00	8,600 00
22	924 38	522 19	.....	415 50	1,862 07	16,500 00	720 00
	302,690 78	165,924 72	14,849 62	250,307 66	733,772 78	3,426,390 00	118,876 00

ROMAN CATHOLIC

I. TABLE F—FINANCIAL

Towns	Receipts			
	Legislative Grants	Municipal Grants and Assessments	Balances, subscribed and other sources	Total amount received
	$ c.	$ c.	$ c.	$ c.
1 Alexandria	262 56	5,592 47	655 18	6,510 21
2 Almonte	105 20	930 51	1,991 57	3,027 28
3 Amherstburg	.....	3,007 12	1,999 14	5,006 26
4 Arnprior	222 40	4,060 37	3,547 78	7,830 55
5 Barrie	98 20	1,941 85	590 10	2,630 15
6*Bonfield	.....	1,171 08	842 95	2,014 03
7 Brockville	226 40	3,960 00	.....	4,186 40
8 Cache Bay	142 56	1,233 00	58 07	1,433 63
9 Charlton	192 06	1,156 73	527 98	1,876 77
10*Chelmsford	.....	1,976 10	203 66	2,179 76
11 Cobalt	.....	10,022 85	6,005 20	16,028 05
12 Cobourg	.....	1,950 00	555 50	2,505 50
13 Cochrane	.....	2,152 98	2,218 06	4,371 04
14 Collingwood	77 20	2,310 00	299 98	2,687 18
15 Cornwall	434 04	8,244 85	2,799 00	11,477 89
16 Dundas	58 80	1,335 18	218 96	1,612 94
17 Eastview	.....	7,700 00	787 65	8,487 65
18 Ford	128 00	4,052 59	6 15	4,186 74
19 Fort Frances	225 56	2,449 27	2,163 48	4,838 31
20 Goderich	64 60	824 06	257 52	1,146 18
21 Hanover	59 60	984 87	214 49	1,258 96
22 Haileybury	268 56	7,525 00	1,279 92	9,073 48
23 Hawkesbury	.....	6,227 05	1,609 06	7,836 11
24 Ingersoll	66 69	1,350 89	823 69	2,241 18
25 Kearney	189 06	668 27	259 16	1,116 49
26 Keewatin	121 57	675 00	188 61	985 18
27 Kenora	198 56	2,600 00	1,810 75	4,609 31
28 Lindsay	268 00	5,158 23	570 66	5,996 89
29 Massey	183 57	1,262 09	931 41	2,377 07
30 Mattawa	1,086 95	3,144 93	3,939 65	8,171 53
31 Mount Forest	75 20	923 87	821 46	1,820 53
32 New Liskeard	149 07	1,300 00	609 32	2,058 39
33 Newmarket	43 60	953 14	850 34	1,847 08
34 North Bay	962 00	15,200 00	283 51	16,445 51
35 Oakville	35 60	629 11	536 68	1,201 39
36 Orillia	113 20	3,051 06	2,473 66	5,637 92
37 Oshawa	164 00	2,124 25	1,339 94	3,628 19
38 Owen Sound	113 68	2,840 74	123 12	3,077 54
39 Paris	56 60	707 78	6,617 43	7,381 81
40 Parkhill	41 60	568 43	86 96	696 99
41 Pembroke	389 20	8,545 88	1,636 99	10,572 07
42 Perth	189 40	1,640 00	212 90	2,042 30
43 Picton	35 60	755 33	648 15	1,439 08
44 Prescott	.....	2,662 88	3,806 62	6,469 50
45 Preston	90 80	3,272 53	1,789 81	5,153 14
46 Rainy River	121 57	963 94	146 54	1,232 05
47 Renfrew	229 40	8,378 10	857 51	9,465 01
48 Rockland	.....	5,358 00	.....	5,358 00
49 St. Mary's	51 60	1,182 48	634 67	1,868 75
50 Sandwich	1,388 00	4,434 58	697 63	6,520 21

* No report for 1916 received; statistics of previous year.

SEPARATE SCHOOLS—Continued

STATEMENT, ETC.—Continued

	Expenditure					Value of school sites, buildings and furniture	Value of equipment
	Teachers' Salaries	Sites and building school houses	Libraries, maps, apparatus, prizes and school books	All other purposes	Total amount expended		
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
1	2,979 00	338 96	118 87	2,998 38	6,435 21	20,000 00	620 00
2	1,393 20	340 00	40 00	350 00	2,123 20	6,000 00	500 00
3	2,124 74	2,586 77	29 92	200 67	4,942 10	40,000 00	1,430 00
4	2,800 00	861 98	90 00	1,898 62	5,650 60	15,000 00	448 00
5	1,440 00	22 30	13 35	652 61	2,128 26	10,500 00	634 00
6	984 15	.....	.....	90 98	1,075 13	1,350 00	120 00
7	2,460 00	300 00	.....	1,426 40	4,186 40	40,000 00	300 00
8	824 00	195 21	5 20	118 75	1,143 16	2,375 00	82 00
9	604 50	953 19	15 12	92 10	1,664 91	1,600 00	200 00
10	1,430 00	19 30	10 00	577 31	2,036 61	1,800 00	197 00
11	6,604 69	2,305 73	13 03	7,104 60	16,028 05	24,000 00	1,642 00
12	1,300 00	439 20	35 00	720 43	2,494 63	1,700 00	600 00
13	1,065 00	1,779 80	.....	513 26	3,358 06	7,400 00	157 00
14	1,329 25	90 11	52 72	890 75	2,362 83	22,000 00	444 00
15	7,793 56	426 80	250 00	2,933 56	11,403 92	40,000 00	7,750 00
16	1,117 25	24 00	.....	368 25	1,509 50	8,400 00	200 00
17	3,613 00	3,591 58	215 69	990 71	8,410 98	48,000 00	136 00
18	2,580 00	463 53	309 80	600 95	3,954 28	4,000 00	200 00
19	1,485 00	1,000 00	4 55	797 20	3,286 75	18,000 00	800 00
20	641 60	172 28	.....	162 30	976 18	8,300 00	267 00
21	1,020 00	.....	32 50	105 74	1,158 24	500 00	30 00
22	3,450 00	2,781 25	14 15	2,085 57	8,330 97	15,600 00	200 00
23	4,079 00	722 30	.....	1,348 08	6,149 38	55,000 00	1,238 00
24	665 00	98 13	25 80	508 12	1,297 05	5,000 00	535 00
25	555 00	.....	25 00	269 32	849 32	1,300 00	200 00
26	555 95	30 15	6 43	280 55	873 08	2,600 00	200 00
27	1,540 00	1,001 66	.....	967 04	3,508 70	15,000 00	2,000 00
28	3,201 55	732 17	.....	1,961 57	5,895 29	60,000 00	3,200 00
29	977 50	242 00	.....	602 74	1,822 24	2,700 00	115 00
30	2,267 00	1,247 05	67 38	1,808 18	5,389 61	16,000 00	500 00
31	622 50	7 75	323 57	362 65	1,316 47	4,500 00	131 00
32	638 63	134 52	7 00	680 53	1,460 68	3,000 00	400 00
33	626 05	242 88	41 60	170 06	1,080 59	5,000 00	223 00
34	9,146 84	3,303 40	64 00	3,331 60	15,845 84	75,000 00	3,000 00
35	501 01	392 37	13 17	281 78	1,188 33	4,000 00	150 00
36	1,600 00	492 77	62 98	2,221 06	4,376 81	2,500 00	1,023 00
37	1,230 00	778 64	.....	882 50	2,891 14	15,000 00	428 00
38	1,130 00	144 11	186 46	904 69	2,365 26	6,000 00	373 00
39	627 50	482 69	13 77	5,904 53	7,028 49	15,000 00	135 00
40	615 00	9 00	17 95	53 05	695 00	3,000 00	37 00
41	5,224 48	2,245 32	157 10	1,510 12	9,137 02	30,000 00	4,000 00
42	1,435 00	.....	36 75	451 00	1,922 75	4,000 00	365 00
43	607 50	.....	32 15	180 33	819 98	2,000 00	49 00
44	1,600 04	181 84	28 00	858 91	2,668 79	20,000 00	1,500 00
45	1,305 00	2,115 32	.....	273 27	3,693 59	24,000 00	422 00
46	500 00	390 17	22 00	67 59	979 76	5,000 00	500 00
47	2,850 00	3,440 52	14 95	1,441 90	7,747 37	50,000 00	1,700 00
48	3,900 00	598 00	210 00	650 00	5,358 00	20,000 00	2,000 00
49	715 00	257 92	.....	236 15	1,209 07	2,500 00	143 00
50	2,237 00	1,514 49	60 13	816 37	4,627 99	17,500 00	500 00

ROMAN CATHOLIC

I. TABLE F—FINANCIAL

Towns—Concluded	Receipts			
	Legislative Grants	Municipal Grants and Assessments	Balances, subscribed and other sources	Total amount received
	$ c.	$ c.	$ c.	$ c.
51 Seaforth	44 60	1,013 63	699 20	1,757 43
52 Smith's Falls	.....	2,041 60	3,034 18	5,075 78
53 Steelton	298 68	2,000 00	3,293 14	5,591 82
54 Sturgeon Falls	.....	5,950 00	1,196 25	7,146 25
55 Sudbury	716 00	17,177 58	5,402 07	23,295 65
56 Thorold	159 60	3,308 80	433 25	3,901 65
57 Tilbury	214 00	2,665 76	1,898 45	4,778 21
58 Timmins	381 56	6,057 00	8 76	6,447 32
59 Trenton	113 20	2,092 64	508 97	2,714 81
60 Vankleek Hill	90 60	1,419 31	606 25	2,116 16
61 Walkerton	97 00	1,671 00	1,763 40	3,531 40
62 Walkerville	102 20	842 63	431 95	1,376 78
63 Wallaceburg	168 80	3,668 11	3,473 27	7,310 18
64 Waterloo	118 80	3,475 92	21 44	3,616 16
65 Weston	37 60	464 66	386 59	888 85
66 Whitby	49 60	679 39	440 90	1,169 89
Totals	11,522 41	215,687 47	85,126 64	312,336 52
Totals				
1 Rural Schools	34,681 26	212,779 97	126,444 90	373,906 13
2 Cities	15,398 12	619,091 88	143,945 14	778,435 14
3 Towns	11,522 41	215,687 47	85,126 64	312,336 52
4 Villages	1,524 88	18,694 02	14,829 81	35,048 71
5 Grand Totals, 1917	63,126 67	1,066,253 34	370,346 49	1,499,726 50
6 Grand Totals, 1916	45,836 21	899,938 22	467,758 78	1,413,533 21
7 Increases	17,290 46	166,315 12	.....	86,193 29
8 Decreases	.....	.....	97,412 29	.....
9 Percentages	4.21	71.09	24.69	.....

Cost per pupil, enrolled attendance: Rural Schools, $17.05; Cities, $21.87;

SEPARATE SCHOOLS—Continued

STATEMENT, ETC.—Concluded

	Expenditure					Value of school sites, buildings and furniture	Value of equipment
	Teachers' Salaries	Sites and building school houses	Libraries, maps, apparatus, prizes and school books	All other purposes	Total amount expended		
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
51	906 00	.....	.....	165 43	1,071 43	3,000 00	114 00
52	1,500 00	2,100 00	100 00	1,372 00	5,072 00	3,500 00	450 00
53	4,053 43	30 20	104 06	1,372 18	5,559 87	2,500 00	1,500 00
54	3,462 00	806 94	25 00	1,324 26	5,618 20	15,000 00	450 00
55	9,038 69	3,550 54	845 19	8,487 73	21,922 15	60,000 00	3,200 00
56	1,640 00	.....	.....	1,924 94	3,564 94	15,000 00	1,100 00
57	1,597 00	733 29	41 91	394 40	2,766 60	6,000 00	410 00
58	3,287 76	.....	.....	2,752 30	6,040 06	3,000 00	500 00
59	930 00	302 39	67 59	1,020 32	2,320 30	8,500 00	1,266 00
60	1,125 00	25 45	14 31	250 00	1,414 76	25,000 00	171 00
61	1,230 00	606 05	50 45	914 59	2,801 09	20,000 00	528 00
62	300 00	568 80	18 65	246 60	1,134 05	4,000 00	124 00
63	1,750 00	1,478 82	53 69	1,043 95	4,326 46	30,000 00	917 00
64	2,050 00	608 92	.....	867 00	3,525 92	16,700 00	610 00
65	625 00	.....	50 00	104 00	779 00	2,803 00	500 00
66	519 62	54 57	30 00	232 50	836 69	3,000 00	28 00
	134,005 99	50,363 13	4,066 94	77,175 03	265,611 09	1,020,125 00	53,892 00
1	183,028 41	38,006 96	5,294 80	59,140 88	285,471 05	611,346 00	36,062 00
2	302,690 78	165,924 72	14,849 62	250,307 66	733,772 78	3,426,390 00	118,876 00
3	134,005 99	50,363 13	4,066 94	77,175 03	265,611 09	1,020,125 00	53,892 00
4	15,363 94	7,808 40	624 81	5,071 00	28,868 15	96,200 00	4,654 00
5	635,089 12	262,103 21	24,836 17	391,694 57	1,313,723 07	5,154,061 00	213,484 00
6	535,661 15	395,289 03	17,709 35	294,669 63	1,243,329 16	.....	.....
7	99,427 97	.....	7,126 82	97,024 94	70,393 91	.....	.....
8	.....	133,185 82	.....	.....	.....	.....	.....
9	48.34	19.95	1.89	29.81	.....	.....	.....

Towns, $14.54; Villages, $19.25; Province, $18.75.

ROMAN CATHOLIC

II. TABLE G—TEACHERS, SALARIES, CERTIFICATES, ATTENDANCE,

Rural Schools	Teachers														
	No. of schools	Number of Teachers	Male	Female	Av. salary, male	Av. salary, female	No. who have ever attended a Model School in Ont.	No. who have ever attended a Normal School in Ont.	No. who have ever attended the Normal College or F. of E. in Ont.	Number of University Graduates	1st Class or Interim 1st Class	2nd Class or Interim 2nd Class	3rd Class	District
					$	$								
1 Bruce	9	15	1	14	625	499	.....	8	2	....	2	8	....	....
2 Carleton	18	24	1	23	450	389	8	9	.....	....	....	7	8	2
3 Essex	26	36	2	34	600	562	14	14	1	....	1	12	15	1
4 Frontenac	11	11	1	10	600	525	1	10	.....	....	....	9	2	....
5 Grey	7	7	1	6	575	562	1	5	1	....	1	5	1	....
6 Hastings	6	6	....	6	....	512	2	4	.....	....	....	3	2	....
7 Huron	9	11	....	11	....	541	1	10	.....	....	....	8	3	....
8 Kent	7	8	1	7	600	507	4	4	.....	....	....	4	4	....
9 Lambton	1	1	....	1	....	550	.....	1	.....	....	....	1	....	....
10 Lanark	3	3	....	3	....	517	1	2	.....	....	1	1	1	....
11 Leeds & Grenville	2	2	....	2	....	375	1	.....	.....	....	....	....	1	....
12 Lennox & Add'gton	2	1	....	1	....	550	.....	1	.....	....	....	1	....	....
13 Middlesex	5	5	....	5	....	555	.....	5	.....	....	....	5	....	....
14 Norfolk	1	1	....	1	....	600	.....	1	.....	....	....	1	....	....
15 Northumberland and Durham	6	6	....	6	....	512	2	4	.....	....	....	4	2	....
16 Ontario	1	1	....	1	....	700	.....	1	.....	....	....	1	....	....
17 Peel	1	1	....	1	....	500	.....	1	.....	....	....	1	....	....
18 Perth	7	10	1	9	600	645	.....	7	3	....	3	7	....	....
19 Peterborough	2	2	....	2	....	625	.....	2	.....	....	....	2	....	....
20 Prescott & Russell	94	129	7	122	519	392	90	6	1	1	1	6	70	11
21 Renfrew	14	23	1	22	700	506	3	17	.....	....	1	16	....	1
22 Simcoe	4	8	....	8	....	450	1	4	.....	....	....	4	1	....
23 Stormont, Dundas and Glengarry	19	28	1	27	475	464	15	10	2	....	3	8	8	4
24 Victoria	2	2	....	2	....	625	.....	2	.....	....	....	2	....	....
25 Waterloo	7	12	1	11	725	455	.....	7	.....	....	....	7	....	....
26 Wellington	6	6	....	6	....	586	.....	6	.....	....	....	6	....	....
27 Districts	45	61	1	60	1025	444	24	4	2	....	1	4	16	5
Totals	315	420	19	401	590	463	168	145	12	1	14	133	134	24
Cities														
1 Belleville	1	7	....	7	....	286	5	5	.....	....	....	5	....	....
2 Brantford	2	10	....	10	....	340	.....	5	1	....	1	5	....	....
3 Chatham	1	8	....	8	....	437	.....	7	1	....	1	7	....	....
4 Fort William	4	20	....	20	....	567	2	16	.....	....	....	16	2	....
5 Galt	1	3	....	3	....	533	1	2	.....	....	....	2	1	....
6 Guelph	3	11	....	11	....	409	.....	6	1	....	1	5	1	....
7 Hamilton	12	57	....	57	....	377	27	26	3	....	3	24	2	....
8 Kingston	3	15	1	14	950	371	15	12	.....	....	....	12	....	....
9 Kitchener	2	17	....	17	....	379	.....	15	.....	....	....	15	....	....
10 London	9	31	....	31	....	330	1	24	6	2	6	24	....	....
11 Niagara Falls	1	4	....	4	....	400	3	1	.....	....	....	1	2	....
12 Ottawa	42	200	38	162	700	458	89	72	2	....	7	74	46	7
13 Peterborough	4	27	....	27	....	368	8	22	4	....	4	22	....	....
14 Port Arthur	2	10	....	10	....	530	2	9	.....	....	....	9	....	....
15 St. Catharines	3	10	....	10	....	400	3	5	.....	....	....	5	1	....
16 St. Thomas	1	6	....	6	....	300	2	4	.....	....	....	4	....	....
17 Sarnia	2	8	....	8	....	325	3	4	1	1	1	4	....	....
18 Sault Ste. Marie	3	14	....	14	....	514	.....	9	.....	....	....	9	2	....
19 Stratford	1	8	....	8	....	375	.....	4	.....	....	....	4	....	....
20 Toronto	28	178	25	153	612	449	22	127	7	5	7	127	3	....
21 Windsor	5	30	....	30	....	393	4	23	3	....	3	22	4	....
22 Woodstock	1	3	....	3	....	300	.....	3	.....	....	....	3	....	....
Totals	131	677	64	613	670	425	187	401	29	8	34	399	64	7

SEPARATE SCHOOLS—Continued

PUPILS IN THE VARIOUS BRANCHES OF INSTRUCTION, ETC.

	Temporary	Permanent Ungraded	Number of Pupils	Boys	Girls	Average daily attendance	Percentage of average to total attendance	Reading						Art
								First Reader, Part I, or Primer	First Reader, Part II, or 1st Book	Second Book	Third Book	Fourth Book	Beyond 4th Book	
1	.....	5	671	349	322	501	75	118	97	174	140	135	7	671
2	6	1	1,014	521	493	558	55	350	199	219	147	97	2	817
3	5	2	1,677	862	815	978	58	532	258	353	278	244	12	1,375
4	.....	.....	254	145	109	147	58	42	27	43	51	83	8	250
5	.....	.....	214	107	107	121	57	37	23	34	59	61	.....	214
6	1	.....	154	70	84	92	60	28	22	29	35	39	1	142
7	.....	.....	320	159	161	223	70	66	36	53	85	69	11	320
8	.....	.....	351	177	174	196	56	139	38	45	51	77	1	351
9	.....	.....	36	14	22	28	78	7	5	5	11	8	.....	36
10	.....	.....	88	41	47	53	60	9	13	21	13	26	6	78
11	1	.....	15	6	9	9	60	3	2	6	1	3	.....	11
12	.....	.....	35	15	20	19	54	4	2	5	13	11	.....	35
13	.....	.....	103	58	45	70	68	15	21	12	32	23	.....	103
14	.....	.....	57	19	38	39	68	6	8	8	14	21	.....	57
15	.....	.....	114	71	43	68	60	27	12	18	25	30	2	110
16	.....	.....	53	22	31	39	74	14	3	12	11	12	1	53
17	.....	.....	24	14	10	13	54	3	3	5	9	4	.....	24
18	.....	.....	415	201	214	275	66	72	51	51	82	99	60	415
19	.....	.....	78	47	31	53	68	10	11	15	15	27	.....	78
20	38	3	5,682	2,842	2,840	3,590	63	2,124	1,146	1,043	853	469	47	4,834
21	4	1	841	427	414	508	60	242	102	137	162	140	58	780
22	2	1	344	161	183	239	69	107	48	74	69	46	.....	344
23	4	1	1,055	510	545	604	57	256	226	177	176	120	100	1,008
24	.....	.....	90	46	44	63	70	10	13	19	19	28	1	90
25	2	3	472	244	228	344	73	83	62	122	134	71	.....	472
26	.....	.....	141	68	73	89	63	35	12	31	29	34	.....	141
27	35	.....	2,444	1,200	1,244	1,241	51	1,089	496	446	255	158	.....	2,244
	98	17	16,742	8,396	8,346	10,160	60.68	5,428	2,936	3,157	2,769	2,135	317	15,053
1	1	1	308	147	161	214	69	67	48	47	68	78	.....	308
2	.....	4	505	231	274	401	79	173	90	59	119	64	.....	505
3	.....	.....	405	193	212	301	74	143	58	52	85	67	.....	405
4	1	1	1,081	575	506	742	69	439	191	207	118	126	.....	1,081
5	.....	.....	147	68	79	108	73	31	24	41	36	15	.....	147
6	.....	4	554	320	234	395	71	123	75	140	104	112	.....	554
7	1	27	2,628	1,313	1,315	2,141	81	718	495	413	579	345	78	2,550
8	.....	3	716	400	316	551	77	194	113	132	177	100	.....	716
9	.....	2	918	481	437	705	77	155	131	236	207	189	.....	918
10	.....	1	1,161	591	570	866	75	269	180	202	245	179	86	1,127
11	.....	1	211	106	105	154	73	54	21	43	51	42	.....	211
12	43	23	9,504	4,569	4,935	6,247	66	2,560	1,771	2,287	1,554	1,097	235	8,818
13	.....	1	1,330	636	694	893	67	279	214	185	202	258	192	1,245
14	.....	1	504	237	267	389	77	172	137	93	73	29	.....	504
15	.....	4	527	269	258	356	68	108	85	113	120	101	.....	527
16	.....	2	247	127	120	179	72	70	35	58	54	50	.....	247
17	.....	3	311	151	160	272	87	73	52	50	59	77	.....	311
18	3	.....	628	305	323	467	74	158	148	106	115	101	.....	628
19	.....	4	367	196	171	283	77	54	77	57	91	88	.....	367
20	.....	41	9,668	5,111	4,557	6,540	68	2,244	1,688	2,084	1,794	1,292	566	9,668
21	.....	1	1,705	848	857	1,150	67	388	374	348	355	240	.....	1,705
22	.....	.....	125	53	72	94	75	35	19	18	32	21	.....	125
	49	124	33,550	16,927	16,623	23,448	69.88	8,507	6,026	6,951	6,238	4,671	1,157	32,667

ROMAN CATHOLIC

II. TABLE G—TEACHERS, SALARIES, CERTIFICATES, ATTENDANCE.

Rural Schools—Concluded	Geography	Music	Literature	Composition	Grammar	English History	Canadian History	Physiology and Hygiene	Nature Study	Physical Culture	Bookkeeping
1 Bruce	553	671	671	671	142	456	456	671	671	671	7
2 Carleton	787	692	760	859	376	149	395	785	836	783	2
3 Essex	1,235	1,090	1,287	1,469	476	396	752	1,249	1,255	1,351	1
4 Frontenac	212	194	210	231	97	135	157	217	239	254	....
5 Grey	177	214	214	214	61	154	154	214	214	214	....
6 Hastiugs	117	65	128	135	37	45	75	120	116	136	2
7 Huron	254	320	320	320	80	218	218	320	320	320	5
8 Kent	276	166	311	311	104	119	205	260	221	282	....
9 Lambton	36	36	36	36	8	19	19	36	36	36	....
10 Lanark	61	78	65	67	33	33	33	59	78	78	1
11 Leeds & Grenville	11	13	11	11	5	9	10	10	11	15	....
12 Lennox & Add'tn.	31	4	31	31	12	23	24	29	35	35	....
13 Middlesex	99	103	103	103	27	62	65	103	103	103	....
14 Norfolk	57	57	57	57	21	35	35	57	57	57	....
15 Northumberland and Durham	103	93	105	106	39	36	48	105	110	111	....
16 Ontario	53	53	43	43	24	43	26	43	53	53	....
17 Peel	24	24	24	24	4	13	13	24	24	24	....
18 Perth	334	415	415	415	150	292	292	367	367	415	....
19 Peterborough	66	76	66	72	34	28	41	66	71	78	....
20 Prescott&Russell	3,976	3,527	3,440	4,630	2,110	810	3,779	3,752	3,614	4,600	137
21 Renfrew	660	566	683	701	238	421	479	686	714	763	26
22 Simcoe	344	327	250	283	90	84	94	236	311	344	....
23 Stormont, Dundas and Glengarry	822	952	857	930	327	499	575	764	875	1,001	33
24 Victoria	90	90	90	90	29	39	48	90	90	90	1
25 Waterloo	389	472	472	472	71	327	327	472	472	472	....
26 Wellington	106	141	141	141	34	94	94	141	141	141	....
27 Districts	1,677	2,233	2,098	2,307	290	652	1,167	2,021	1,958	2,322	18
Totals	12,550	12,672	12,888	14,729	4,919	5,191	9,581	12,897	12,992	14,749	233
Cities											
1 Belleville	241	308	308	308	146	78	146	241	241	308	....
2 Brantford	332	505	505	505	64	242	242	505	505	505	....
3 Chatham	405	405	405	405	67	204	262	405	405	405	....
4 Fort William	1,081	1,081	1,081	1,081	126	244	451	1,081	1,081	1,081	....
5 Galt	116	147	147	147	15	92	92	147	147	147	....
6 Guelph	431	554	554	554	112	356	356	554	554	554	....
7 Hamilton	2,628	2,628	2,628	2,628	345	424	1,415	2,550	2,550	2,628	78
8 Kingston	514	716	300	514	100	100	514	100	514	716	....
9 Kitchener	763	918	918	918	189	632	632	918	918	918	....
10 London	1,161	1,161	1,161	1,161	231	500	702	1,075	1,075	1,161	34
11 Niagara Falls	211	211	211	211	42	93	136	211	211	211	....
12 Ottawa	7,809	8,074	8,441	8,688	3,361	1,858	2,189	6,664	8,426	7,350	187
13 Peterborough	1,181	1,330	1,330	1,330	449	576	592	1,138	1,330	1,138	....
14 Port Arthur	504	504	504	504	29	102	195	504	504	504	....
15 St. Catharines	527	527	527	527	101	101	527	527	527	527	....
16 St. Thomas	247	247	247	247	50	50	94	247	247	247	....
17 Sarnia	311	311	311	311	77	93	171	311	311	311	....
18 Sault Ste. Marie	628	628	628	628	101	216	216	628	628	628	....
19 Stratford	313	367	367	367	88	236	236	367	367	367	....
20 Toronto	9,668	9,668	9,668	9,668	1,660	3,290	3,997	9,668	9,668	9,668	125
21 Windsor	1,705	1,705	1,705	1,705	497	259	430	1,705	1,705	1,705	....
22 Woodstock	125	125	125	125	21	53	90	125	125	125	....
Totals	30,901	32,120	32,071	32,532	7,871	9,799	13,685	29,671	32,039	31,204	424

SEPARATE SCHOOLS—Continued

PUPILS IN THE VARIOUS BRANCHES OF INSTRUCTION, ETC.—Continued

	Arithmetic and Mensuration	Algebra	Geometry	Latin	French (beyond 4th Book)	French (Primer to 4th Book, inclusive)	German (beyond 4th Book)	German (Primer to 4th Book, inclusive)	Elementary Science	Commercial Subjects	Agriculture	Manual Training	Household Science	Maps, Globes and Prizes: Number of Maps	Maps, Globes and Prizes: Number of Globes	Maps, Globes and Prizes: No. of Schools giving Prizes	Number of Trees planted on Arbor Day
1	7	7	....	5	....	....	....	214	....	....	195	37	....	125	13	5	15
2	2	....	....	....	....	721	....	....	....	....	154	147	147	163	19	7	14
3	12	12	6	....	....	1,260	....	....	7	....	216	93	....	225	26	12	5
4	6	6	6	6	....	....	....	....	2	....	131	65	....	92	10	5	2
5	....	....	....	....	....	....	....	....	....	....	86	11	....	93	7	3	3
6	1	1	1	....	1	....	....	....	....	....	....	....	....	79	7	1	....
7	6	6	3	....	....	....	....	....	5	....	82	74	....	113	12	4	10
8	1	1	1	....	1	255	....	....	1	....	61	29	....	70	7	2	....
9	....	....	....	....	....	....	....	....	....	....	....	....	....	13	1	....	....
10	6	6	3	6	5	....	....	....	....	....	20	35	35	31	3	....	....
11	....	....	....	....	....	....	....	....	....	....	....	....	....	24	2	....	....
12	....	....	....	....	....	....	....	....	....	....	31	....	....	14	3	....	....
13	....	....	....	....	....	....	....	....	....	....	52	....	....	53	5	3	....
14	....	....	....	....	....	....	....	....	....	....	....	....	....	15	1	....	....
15	2	2	....	2	2	....	....	....	....	....	41	26	....	58	6	6	6
16	....	....	....	....	....	....	....	....	....	....	24	....	....	7	1	....	....
17	....	....	....	....	....	....	....	....	....	....	....	....	....	10	1	....	....
18	51	57	36	44	31	....	....	....	48	....	125	....	....	97	7	....	1
19	....	....	....	....	....	....	....	....	....	....	71	....	....	20	2	1	12
20	71	38	....	5	70	5,371	....	....	47	....	....	346	....	575	90	32	100
21	34	58	31	58	48	103	....	....	44	....	31	24	....	131	15	5	12
22	....	....	....	....	282	....	....	....	....	....	26	....	....	52	5	2	65
23	68	90	90	30	35	569	....	....	64	....	72	36	78	178	19	5	7
24	1	1	....	....	....	....	....	....	....	1	70	....	....	18	2	1	....
25	....	....	....	....	....	....	....	182	....	....	118	209	28	104	9	5	6
26	....	....	....	....	....	....	....	....	....	....	63	19	....	78	7	3	....
27	....	....	....	....	....	2,154	....	....	....	....	62	189	....	227	36	15	25
	268	285	177	156	475	10,433	....	396	218	1	1,731	1,340	288	2,665	316	117	283
1	....	....	....	....	....	....	....	....	....	....	....	....	....	21	3	1	....
2	....	....	....	....	....	....	....	....	....	....	....	....	....	31	2	1	....
3	....	....	....	....	....	....	....	....	....	....	....	....	....	25	5	1	....
4	....	....	....	....	....	....	....	....	....	....	....	....	....	29	4	4	....
5	....	....	....	....	....	....	....	....	....	....	....	55	....	8	1	....	....
6	....	....	....	....	....	....	....	....	....	....	....	....	18	25	5	....	....
7	78	....	....	....	....	....	....	....	....	78	....	....	....	174	50	10	10
8	....	....	....	....	....	....	....	....	....	....	....	....	....	12	8	....	....
9	....	....	....	....	....	....	....	736	....	....	....	40	59	42	5	....	....
10	86	76	52	52	52	....	....	....	....	34	....	....	....	88	15	8	....
11	....	....	....	....	....	....	....	....	....	....	....	....	....	8	2	....	....
12	68	68	50	....	68	4,494	....	....	68	....	112	3,095	383	406	59	....	12
13	138	192	108	192	192	....	1	....	138	....	360	198	46	65	8	1	....
14	....	....	....	....	....	....	....	....	....	....	....	....	....	14	2	1	....
15	....	....	....	....	....	....	....	....	....	....	....	....	....	39	3	....	....
16	....	....	....	....	....	....	....	....	....	....	....	....	....	17	2	....	....
17	....	....	....	....	....	....	....	....	....	....	....	....	....	25	2	1	....
18	....	....	....	....	....	....	....	....	....	....	....	31	28	17	3	1	....
19	....	....	....	....	....	....	....	....	....	....	....	184	95	30	2	1	....
20	313	435	355	435	486	234	....	....	487	125	....	....	....	159	30	....	....
21	....	....	....	....	....	137	....	....	....	....	....	....	....	58	9	5	....
22	....	....	....	....	....	....	....	....	....	....	....	....	....	15	3	1	....
	683	771	565	679	798	4,865	1	736	693	237	472	3,603	629	1,308	223	36	22

ROMAN CATHOLIC

II. TABLE G—TEACHERS, SALARIES, CERTIFICATES, ATTENDANCE,

Towns	No. of schools	Teachers: Number of Teachers	Male	Female	Av. salary, male	Av. salary, female	Number who have ever attended a Model School in Ontario	Number who have ever attended a Normal School in Ontario	Number who have ever attended the Normal Coll. or F. of E. in Ontario	Number of University graduates	1st Class or Interim 1st Class	2nd Class or Interim 2nd Class	3rd Class	District
					$	$								
1 Alexandria ...	2	12	....	12	....	250	1	2	1	....	1	2	1	...
2 Almonte	1	3	....	3	....	450	3	2	.....	....	....	2	.....	...
3 Amherstburg .	2	8	....	8	....	300	3	5	.....	....	....	5	.....	...
4 Arnprior.....	2	8	....	8	....	350	5	4	.....	....	....	5	.....	...
5 Barrie	1	4	....	4	....	375	.....	1	.....	....	....	1	.....	...
6*Bonfield	1	2	1	1	575	450	.....	.....	.....	....	....	.....	.....	...
7 Brockville	1	8	....	8	....	300	4	.....	.....	....	....	5	1	...
8 Cache Bay	1	2	....	2	....	500	1	1	.....	....	....	1	.....	1
9 Charlton	1	1	....	1	....	600	.....	1	.....	....	....	1	.....	...
10 Chelmsford ...	1	4	....	4	....	369	.....	1	.....	....	....	1	.....	...
11 Cobalt	2	11	....	11	....	561	1	4	.....	....	....	4	1	...
12 Cobourg	1	4	....	4	....	325	.....	4	.....	....	....	4	.....	...
13 Cochrane.....	1	5	....	5	....	400	.....	.....	.....	....	....	.....	.....	...
14 Collingwood ..	1	2	....	2	....	675	.....	2	.....	....	....	2	.....	...
15 Cornwall	4	20	7	13	429	410	13	7	.....	....	....	3	10	...
16 Dundas	1	3	....	3	....	363	2	1	.....	....	....	1	.....	...
17 Eastview	1	11	1	10	750	310	7	.....	.....	....	....	.....	7	2
18 Ford	2	6	....	6	....	396	4	1	1	....	1	1	2	...
19 Fort Frances..	1	4	....	4	....	375	.....	.....	.....	....	....	.....	.....	...
20 Goderich	1	2	....	2	....	325	.....	1	.....	....	....	1	.....	...
21 Hanover.....	1	2	....	2	....	525	.....	2	.....	....	....	2	.....	...
22 Haileybury ...	1	6	....	6	....	550	1	1	.....	....	....	1	2	...
23 Hawkesbury ..	3	21	4	17	450	218	3	1	.....	....	....	1	4	3
24 Ingersoll	1	2	....	2	....	300	1	1	.....	....	....	1	.....	...
25 Kearney	1	1	....	1	....	550	.....	1	.....	....	....	1	.....	...
26 Keewatin.....	1	1	....	1	....	550	1	.....	.....	....	....	.....	1	...
27 Kenora	2	7	....	7	....	235	.....	.....	.....	....	....	.....	.....	...
28 Lindsay	2	7	1	6	1025	375	.....	7	.....	....	....	7	.....	...
29*Massey	1	2	....	2	....	500	1	1	.....	....	....	.....	2	...
30 Mattawa	1	6	....	6	....	392	3	2	.....	....	....	2	3	...
31 Mount Forest .	1	2	....	2	....	350	.....	1	.....	....	....	1	.....	...
32 New Liskeard	1	1	....	1	....	650	.....	1	.....	....	....	1	.....	...
33 Newmarket...	1	1	....	1	....	625	.....	1	.....	....	....	1	.....	...
34 North Bay....	3	17	....	17	....	476	6	11	.....	....	....	12	5	...
35 Oakville	1	1	....	1	....	525	.....	.....	1	....	1	.....	.....	...
36 Orillia	1	4	....	4	....	400	.....	3	.....	....	....	3	.....	...
37 Oshawa	1	3	....	3	....	400	1	2	.....	....	....	2	.....	...
38 Owen Sound ..	1	4	....	4	....	300	.....	3	.....	1	....	3	.....	...
39 Paris	1	2	....	2	....	300	1	1	.....	....	....	1	.....	...
40 Parkhill.....	1	1	....	1	....	600	.....	1	.....	....	....	1	.....	...
41 Pembroke.....	1	12	....	12	....	462	.....	8	.....	....	....	8	.....	...
42 Perth	1	4	....	4	....	350	4	4	.....	....	....	4	.....	...
43 Picton	1	1	....	1	....	600	1	1	.....	....	....	1	.....	...
44 Prescott	1	4	....	4	....	400	3	2	.....	....	....	2	1	...
45 Preston.....	1	4	....	4	....	300	1	1	.....	....	....	1	1	...
46 Rainy River ..	1	1	....	1	....	500	.....	.....	.....	....	....	.....	.....	...
47 Renfrew	1	8	....	8	....	331	.....	5	.....	....	....	5	.....	...
48*Rockland	2	15	....	15	....	260	4	.....	.....	....	....	.....	8	3
49 St. Mary's	1	2	....	2	....	350	.....	1	.....	....	....	1	.....	...
50 Sandwich.....	2	7	....	7	....	357	2	5	.....	....	....	3	4	...
51 Seaforth.....	1	2	....	2	....	450	.....	2	.....	....	....	2	.....	...
52 Smith's Falls.	1	5	....	5	....	300	4	3	.....	....	....	3	.....	...
53 Steelton	2	9	....	9	....	444	4	3	.....	....	....	2	2	3

*No report received for 1917.

SEPARATE SCHOOLS—Continued

PUPILS IN THE VARIOUS BRANCHES OF INSTRUCTION, ETC.—Continued

	Temporary	Permanent Ungraded	Number of Pupils	Boys	Girls	Average daily attendance	Percentage of average to total attendance	Reading						Art
								First Reader, Part I, or Primer	First Reader, Part II, or 1st Book	Second Book	Third Book	Fourth Book	Beyond 4th Book	
1	1	7	629	291	338	423	67	215	109	113	106	86	.....	629
2	.....	1	146	66	80	95	65	30	25	18	44	29	.....	146
3	.....	3	282	109	173	215	76	71	38	44	70	35	24	282
4	1	2	435	222	213	294	68	138	59	103	67	68	.....	435
5	.....	3	165	78	87	121	73	32	21	31	32	49	.....	165
6	2	.....	137	61	76	76	55	65	30	21	10	11	.....	40
7	.....	2	317	147	170	229	72	57	78	78	57	47	.....	317
8	.....	.....	152	91	61	73	48	71	16	53	3	9	.....	152
9	.....	.....	57	26	31	30	53	28	8	7	4	10	.....	57
10	2	1	180	78	102	117	65	40	33	43	41	21	2	180
11	6	.....	633	334	299	366	58	217	104	169	78	65	.....	633
12	.....	.....	139	68	71	103	74	28	9	34	32	36	.....	139
13	5	.....	311	156	155	167	54	89	74	99	45	4	.....	311
14	.....	.....	100	50	50	66	66	27	11	16	24	22	.....	100
15	.....	5	1,063	489	574	769	72	360	240	203	155	105	.....	1,063
16	.....	2	116	63	53	85	73	15	28	24	28	21	.....	116
17	2	.....	592	253	339	416	70	330	144	50	39	29	.....	592
18	1	1	334	175	159	237	71	121	85	71	31	26	.....	334
19	4	.....	192	97	95	107	56	76	26	37	31	21	1	192
20	.....	1	82	40	42	57	70	13	9	12	22	26	.....	82
21	.....	.....	92	46	46	65	71	15	11	45	14	7	.....	92
22	3	.....	365	221	144	211	58	94	63	120	48	40	.....	365
23	13	.....	1,094	514	580	743	68	408	318	198	116	37	17	1,094
24	.....	1	108	53	55	77	71	31	12	18	26	21	.....	108
25	.....	.....	37	19	18	26	70	8	11	6	7	5	.....	37
26	.....	.....	30	12	18	16	53	4	12	11	3	.....	.....	30
27	7	.....	261	138	123	177	68	100	34	62	26	39	.....	261
28	.....	.....	304	149	155	223	73	39	59	64	61	81	.....	298
29	.....	.....	126	49	77	56	44	75	12	26	3	10	.....	39
30	.....	1	310	149	161	206	66	98	49	45	51	61	6	310
31	.....	1	66	28	38	56	85	18	13	13	15	7	.....	66
32	.....	.....	65	44	21	37	57	22	3	20	7	13	.....	65
33	.....	.....	65	41	24	39	60	20	10	8	13	14	.....	65
34	.....	.....	902	438	464	660	73	206	195	168	180	153	.....	902
35	.....	.....	42	15	27	22	52	15	3	5	4	15	.....	42
36	.....	1	183	101	82	128	70	32	30	43	36	42	.....	183
37	.....	1	147	78	69	99	67	48	13	33	32	21	.....	147
38	.....	1	187	104	83	132	71	32	29	47	43	36	.....	187
39	.....	1	76	35	35	55	79	23	8	10	10	19	.....	70
40	.....	.....	41	23	18	26	63	6	9	11	4	11	.....	41
41	.....	4	620	329	291	448	72	227	106	102	89	96	.....	620
42	.....	.....	229	108	121	176	77	30	34	56	55	54	.....	229
43	.....	.....	34	13	21	21	62	3	5	11	7	8	.....	34
44	.....	1	140	82	58	105	75	31	16	30	26	37	.....	140
45	.....	2	210	92	118	164	78	34	38	49	37	52	.....	210
46	1	.....	42	18	24	25	60	22	10	1	7	2	.....	42
47	1	2	484	241	243	333	69	172	64	61	102	85	.....	484
48	4	.....	922	491	431	575	62	417	262	142	77	24	.....	922
49	.....	1	57	27	30	44	77	12	6	8	17	14	.....	57
50	.....	.....	396	206	190	228	58	136	65	132	40	23	.....	260
51	.....	.....	76	44	32	37	49	22	7	13	17	17	.....	76
52	1	1	257	120	137	183	71	90	45	45	42	35	.....	257
53	2	.....	500	248	252	276	55	202	88	106	69	35	.....	500

ROMAN CATHOLIC

II. TABLE G—TEACHERS, SALARIES, CERTIFICATES, ATTENDANCE,

Towns—Con.	Geography	Music	Literature	Composition	Grammar	English History	Canadian History	Physiology and Hygiene	Nature Study	Physical Culture	Bookkeeping
1 Alexandria	629	629	629	629	56	160	145	629	629	629	.....
2 Almonte	121	146	121	146	29	31	73	91	121	146	.....
3 Amherstburg ..	282	282	282	282	59	59	129	258	258	282	.....
4 Arnprior.....	367	435	435	435	68	135	238	435	435	435	.....
5 Barrie.....	133	165	165	165	49	112	112	165	165	165	.....
6 Bonfield	70	.....	137	137	42	21	42	137	137	137	.....
7 Brockville	317	317	317	317	47	107	137	317	317	317	.....
8 Cache Bay.....	143	152	143	152	9	143	143	143	143	152	.....
9 Charlton	57	57	57	57	10	34	57	57	57	57	.....
10 Chelmsford	180	180	180	180	107	25	180	180	180	180	23
11 Cobalt.....	405	633	633	633	65	210	330	633	633	197	.....
12 Cobourg	139	139	102	139	38	68	68	139	139	139	.....
13 Cochrane.....	222	311	311	311	4	49	49	311	311	311	.....
14 Collingwood....	73	100	100	100	22	62	62	100	100	100	.....
15 Cornwall	703	1,063	1,063	1,063	260	1,063	1,063	1,063	1,063	1,063	.....
16 Dundas	116	116	116	116	21	49	73	116	116	116	.....
17 Eastview.....	592	592	592	592	61	.....	323	592	592	592	.....
18 Ford	334	334	334	334	26	334	128	334	334	334	.....
19 Fort Frances...	192	192	192	192	22	90	90	192	192	192	1
20 Goderich.....	69	82	82	82	26	60	60	82	82	82	.....
21 Hanover	77	92	92	92	7	66	66	92	92	92	.....
22 Haileybury	365	365	208	208	128	128	128	365	365	365	.....
23 Hawkesbury ...	1,094	1,094	1,094	1,094	54	54	1,094	1,094	1,094	1,094	17
24 Ingersoll	108	108	108	108	21	21	47	108	108	108	.....
25 Kearney.....	37	37	37	37	5	12	12	37	37	37	.....
26 Keewatin	30	30	30	30	.....	11	11	30	30	30	.....
27 Kenora	261	261	261	261	61	50	161	261	261	261	.....
28 Lindsay	206	304	146	146	81	165	165	165	165	304	.....
29 Massey	39	39	39	39	10	10	41	41	41	41	.....
30 Mattawa	310	310	310	310	118	118	118	310	310	310	37
31 Mount Forest ..	48	66	66	66	7	35	35	66	66	66	.....
32 New Liskeard..	65	65	65	65	13	20	20	65	65	65	.....
33 Newmarket	45	65	65	65	14	35	35	65	65	65	.....
34 North Bay.....	902	902	902	902	153	333	501	902	902	902	.....
35 Oakville	42	42	42	42	15	19	42	42	42	42	.....
36 Orillia.....	151	183	183	183	58	42	78	78	183	183	.....
37 Oshawa	147	147	147	147	21	21	53	147	147	147	.....
38 Owen Sound ...	155	187	187	187	36	126	126	187	187	187	.....
39 Paris	70	70	70	70	19	29	29	70	70	70	.....
40 Parkhill.....	35	41	41	41	11	26	26	41	41	41	.....
41 Pembroke	620	620	620	620	96	185	287	620	620	620	.....
42 Perth	165	229	165	229	54	165	165	165	229	229	.....
43 Picton.....	34	34	34	34	15	15	15	34	34	34	.....
44 Prescott.....	93	140	93	93	63	63	63	140	140	140	.....
45 Preston	176	210	210	210	52	138	138	210	210	210	.....
46 Rainy River ...	42	42	42	42	6	6	6	42	42	42	.....
47 Renfrew.....	484	484	484	484	85	139	194	484	484	484	.....
48 Rockland	922	922	86	922	922	50	922	922	922	922	.....
49 St. Mary's.....	45	57	57	57	14	39	39	57	57	57	.....
50 Sandwich.....	260	396	396	396	63	63	195	195	396	396	.....
51 Seaforth.....	54	76	76	76	17	47	47	76	76	76	.....
52 Smith's Falls..	257	257	257	257	21	59	59	257	257	257	.....
53 Steelton.....	500	500	500	500	35	210	210	500	500	500	.....

SEPARATE SCHOOLS—Continued

PUPILS IN THE VARIOUS BRANCHES OF INSTRUCTION, ETC.—Continued

	Arithmetic and Mensuration	Algebra	Geometry	Latin	French (beyond 4th Book)	French (Primer to 4th Book, inclusive)	German (beyond 4th Book)	German (Primer to 4th Book, inclusive)	Elementary Science	Commercial Subjects	Agriculture	Manual Training	Household Science	Maps, Globes and Prizes: Number of Maps	Number of Globes	Number of Schools giving Prizes	Number of Trees planted on Arbor Day
1	....	....	....	....	....	....	....	....	....	....	....	....	....	18	3	....	....
2	....	....	....	....	....	....	....	....	....	....	....	....	....	12	1	....	....
3	24	24	4	....	10	223	....	....	24	....	....	....	....	22	2	....	....
4	....	....	....	....	....	....	....	....	....	....	....	176	....	20	3	....	....
5	....	....	....	....	....	....	....	....	....	....	81	....	....	35	4	....	....
6	....	....	....	....	....	137	....	....	....	....	....	....	....	10	1	....	....
7	....	....	....	....	....	....	....	....	....	....	....	147	....	13	4	1	....
8	....	....	....	....	....	148	....	....	....	....	....	....	....	8	2	1	....
9	....	....	....	....	....	....	....	....	....	....	....	....	....	6	1	1	....
10	2	2	....	....	2	172	....	....	2	2	....	180	....	12	2	1	10
11	....	....	....	....	....	436	....	....	....	....	....	....	....	12	3	1	....
12	....	....	....	....	....	....	....	....	....	....	....	....	....	14	1	....	....
13	....	....	....	....	....	251	....	....	....	....	....	....	....	10	1	....	....
14	....	....	....	....	....	....	....	....	....	....	46	22	24	21	2	1	....
15	....	....	....	....	....	....	....	....	....	....	....	....	....	50	6	....	....
16	....	....	....	....	....	....	....	....	....	....	....	....	....	10	1	....	....
17	....	....	....	....	....	592	....	....	....	....	....	....	....	30	2	1	....
18	....	....	....	....	....	300	....	....	....	....	....	....	....	7	3	1	....
19	1	1	....	....	....	....	....	....	....	....	....	....	....	14	2	1	....
20	....	....	....	....	....	....	....	....	....	....	....	....	....	12	2	1	....
21	....	....	....	....	....	....	....	....	....	....	21	....	....	5	1	1	30
22	....	....	....	....	....	88	....	....	....	....	....	....	....	1	1	....	....
23	17	17	....	....	17	1,077	....	....	17	....	....	....	....	62	11	....	....
24	....	....	....	....	....	....	....	....	....	....	....	....	....	15	1	....	....
25	....	....	....	....	....	....	....	....	....	....	....	....	....	10	1	1	....
26	....	....	....	....	....	10	....	....	....	....	....	....	....	6	1	1	....
27	....	....	....	....	....	261	....	....	....	....	....	50	102	36	1	....	....
28	....	....	....	....	....	....	....	....	....	....	84	....	....	22	2	....	....
29	....	....	....	....	....	90	....	....	....	....	....	....	....	4	1	....	....
30	6	6	6	....	4	170	....	....	6	....	67	310	....	22	1	1	....
31	....	....	....	....	....	....	....	....	....	....	....	....	....	15	1	1	....
32	....	....	....	....	....	....	....	....	....	....	....	....	....	5	1	....	....
33	....	....	....	....	....	....	....	....	....	....	....	....	....	10	1	....	....
34	....	....	....	....	....	299	....	....	....	....	....	....	....	20	5	....	....
35	....	....	....	....	....	....	....	....	....	....	....	....	....	4	1	....	....
36	....	....	....	....	....	....	....	....	....	....	....	....	....	21	2	....	....
37	....	....	....	....	....	....	....	....	....	....	....	....	....	12	1	....	....
38	....	....	....	....	....	....	....	....	....	....	79	....	48	15	1	1	....
39	....	....	....	....	....	....	....	....	....	....	....	....	....	3	1	1	....
40	....	....	....	....	....	....	....	....	....	....	....	....	....	9	2	....	....
41	....	....	....	....	....	73	....	....	....	....	....	....	....	32	1	....	....
42	....	....	....	....	....	....	....	....	....	....	....	....	....	12	1	1	....
43	....	....	....	....	....	....	....	....	....	....	....	....	....	11	1	....	....
44	....	....	....	....	....	....	....	....	....	....	....	....	....	12	1	....	....
45	....	....	....	....	....	....	....	....	....	....	....	....	....	8	1	1	....
46	....	....	....	....	....	32	....	....	....	....	....	....	....	2	1	1	12
47	....	....	....	....	....	....	....	....	....	....	....	....	....	16	1	1	....
48	....	....	....	....	....	920	....	....	....	....	....	....	....	32	9	....	....
49	....	....	....	....	....	....	....	....	....	....	....	....	....	10	1	....	....
50	....	....	....	....	....	341	....	....	....	....	....	....	....	9	2	....	....
51	....	....	....	....	....	....	....	....	....	....	34	....	....	13	1	....	....
52	....	....	....	....	....	....	....	....	....	....	77	17	25	9	2	....	....
53	....	....	....	....	....	500	....	....	....	....	....	....	....	22	1	....	....

ROMAN CATHOLIC

II. TABLE G—TEACHERS, SALARIES, CERTIFICATES, ATTENDANCE,

Towns—Continued	Teachers														
	No. of Schools	Number of Teachers	Male	Female	Av. salary, male	Av. salary, female	Number who have ever attended a Model School in Ontario	Number who have ever attended a Normal School in Ontario	Number who have ever attended the Normal Coll. or F. of E. in Ontario	Number of University Graduates	1st Class or Interim 1st Class	2nd Class or Interim 2nd Class	3rd Class	District
					$	$								
54 Sturgeon Falls	1	10	....	16	...	375	6	.....	.....	....	....	.....	.....	6
55 Sudbury ..	2	16	....	16	...	550	7	6	.....	....	....	6	3	....
56 Thorold ...	1	4	....	4	...	400	3	1	.....	....	....	1	.....	....
57 Tilbury....	1	5	....	5	...	310	4	1	.....	....	....	1	1	....
58 Timmins ..	2	5	....	5	...	840	4	.....	.....	....	....	.....	3	1
59 Trenton ...	1	4	....	4	...	300	2	2	.....	....	....	2	2	....
60 Vankleek Hill.....	1	5	....	5	...	250	3	1	.....	....	....	.....	.....	2
61 Walkerton .	1	4	....	4	...	300	.....	.....	.....	....	....	.....	.....	....
62 Walkerville	1	3	....	3	...	275	.....	1	.....	....	....	1	.....	....
63 Wallaceb'rg	1	6	....	6	...	292	1	4	.....	....	....	4	1	....
64 Waterloo ..	1	5	....	5	...	400	.....	.....	.....	....	....	.....	.....	....
65 Weston....	1	1	....	1	...	625	.....	1	.....	....	....	1	.....	....
66 Whitby....	1	1	....	1	...	575	1	1	.....	....	....	1	.....	....
Totals.....	85	354	14	340	511	385	116	130	3	1	3	130	65	21
Totals														
1 Rur'l Schools	315	420	19	401	590	463	168	145	12	1	14	133	134	24
2 Cities	131	677	64	613	670	425	187	401	29	8	34	399	64	7
3 Towns	85	354	14	340	511	385	116	130	3	1	3	130	65	21
4 Villages	17	37	1	36	550	416	9	18	3	....	3	19	3	2
5 Gd. Totals, 1917.....	548	1,488	98	1,390	630	426	480	694	47	10	54	681	266	54
6 Gd. Totals, 1916.....	539	1,454	92	1,362	654	407	427	668	44	13	49	666	254	45
7 Increases ...	9	34	6	28	...	19	53	26	3	....	5	15	12	9
8 Decreases...	...	.....	.....	.....	24	...	.....	.....	.....	3	....	.....	.....	....
9 Percentages.	...	.....	6.58	93.41	...	...	32.25	46.63	3.15	.67	3.63	45.76	17.87	3.63

SEPARATE SCHOOLS—Continued

PUPILS IN THE VARIOUS BRANCHES OF INSTRUCTION, ETC.—Continued

	Temporary	Permanent Ungraded	Number of Pupils	Boys	Girls	Average daily attendance	Percentage of average to total attendance	Reading						Art
								First Reader, Part I, or Primer	First Reader, Part II, or 1st Book	Second Book	Third Book	Fourth Book	Beyond 4th Book	
54	4	.....	529	250	279	348	66	187	149	87	52	50	4	529
55	5	2	937	454	483	548	58	307	279	166	95	90	.....	937
56	.....	3	230	113	117	173	75	86	26	46	46	26	.....	230
57	3	.....	268	122	146	175	65	86	55	77	20	30	.....	268
58	1	.....	285	125	160	193	68	144	57	46	42	2	.....	285
59	.....	.....	217	132	85	139	64	67	44	22	48	36	.....	217
60	.....	3	230	100	130	128	56	57	32	43	43	55	.....	230
61	.....	4	185	111	74	150	81	24	29	43	43	46	.....	185
62	1	1	152	76	76	97	64	30	28	25	41	28	.....	152
63	1	.....	314	131	183	211	67	119	45	59	51	40	.....	314
64	.....	5	255	121	134	204	80	46	44	60	56	49	.....	255
65	.....	.....	72	32	40	44	61	14	9	11	23	15	.....	72
66	.....	.....	59	25	34	41	69	14	5	13	13	14	.....	59
	71	64	18,257	8,962	9,295	12,166	66.63	5,896	3,589	3,627	2,776	2,315	54	17,931
1	98	17	16,742	8,396	8,346	10,160	60.68	5,428	2,936	3,157	2,769	2,135	317	15,053
2	49	124	33,550	16,927	16,623	23,448	69.88	8,507	6,026	6,951	6,238	4,671	1,157	32,667
3	71	64	18,257	8,962	9,295	12,166	66.63	5,896	3,589	3,627	2,776	2,315	54	17,931
4	2	8	1,499	751	748	1,145	76.38	442	222	224	283	302	26	1,499
5	220	213	70,048	35,036	35,012	46,919	66.98	20,273	12,773	13,959	12,066	9,423	1,554	67,150
6	229	211	69,265	35,410	33,855	46,197	66.69	20,296	11,794	13,799	12,061	9,560	1,755	65,809
7	.....	2	783	.....	1,157	722	.29	.....	979	160	5	.....	.....	1,341
8	9	.....	.....	374	.....	.....	.....	23	.....	.....	.....	137	201	.....
9	14.78	14.31	.....	50.01	49.98	66.98	.....	28.94	18.23	19.92	17.22	13.45	2.21	95.86

ROMAN CATHOLIC

II. TABLE G—TEACHERS, SALARIES, CERTIFICATES, ATTENDANCE,

Towns—Concluded	Geography	Music	Literature	Composition	Grammar	English History	Canadian History	Physiology and Hygiene	Nature Study	Physical Culture	Bookkeeping
54 Sturgeon Falls	193	193	193	529	54	54	193	529	529	193	.....
55 Sudbury	937	937	937	937	90	185	351	937	937	937	.....
56 Thorold	230	230	230	230	26	26	72	230	230	230	.....
57 Tilbury.....	127	268	127	127	50	30	50	50	127	268	.....
58 Timmins	285	285	285	285	2	44	77	285	285	285	.....
59 Trenton	150	217	217	217	36	84	84	217	217	217	.....
60 Vankleek Hill.	230	230	141	230	55	98	230	230	230	230	.....
61 Walkerton	161	185	185	185	46	132	132	185	185	185	.....
62 Walkerville...	152	152	152	152	28	26	43	152	152	152	.....
63 Wallaceburg ..	314	314	314	314	40	91	91	314	314	314	.....
64 Waterloo	209	255	255	255	49	165	165	255	255	255	.....
65 Weston.....	72	72	72	72	15	15	38	72	72	72	.....
66 Whitby	59	59	59	59	14	27	27	59	59	59	.....
Totals.....	16,102	17,697	16,271	17,667	3,801	6,289	10,183	17,357	17,834	17,400	78
Totals											
1 Rural Schools..	12,550	12,672	12,888	14,729	4,919	5,191	9,581	12,897	12,992	14,749	233
2 Cities.....	30,901	32,120	32,071	32,532	7,871	9,799	13,685	29,671	32,039	31,204	424
3 Towns	16,102	17,697	16,271	17,667	3,801	6,289	10,183	17,357	17,834	17,400	78
4 Villages	1,327	1,076	1,430	1,454	500	477	980	1,368	1,414	1,486	13
5 Gd. Totals, 1917	60,880	63,565	62,660	66,382	17,091	21,756	34,429	61,293	64,279	64,839	748
6 Gd. Totals, 1916	63,384	61,263	60,010	64,984	23,920	26,350	35,067	61,326	62,328	63,352	942
7 Increases	.....	2,302	2,650	1,398	.....	.....	.....	.....	1,951	1,487	.....
8 Decreases.....	2,504	.....	.....	.....	6,829	4,594	638	33	.....	.....	194
9 Percentages ...	86.91	90.74	89.45	94.76	24.39	31.05	49.15	87.50	91.76	92.56	1.06

SEPARATE SCHOOLS—Concluded

PUPILS IN THE VARIOUS BRANCHES OF INSTRUCTION, ETC.—Concluded

	Arithmetic and Mensuration	Algebra	Geometry	Latin	French (beyond 4th Book)	French (Primer to 4th Book, inclusive)	German (beyond 4th Book)	German (Primer to 4th Book, inclusive)	Elementary Science	Commercial Subjects	Agriculture	Manual Training	Household Science	Maps, Globes and Prizes: Number of Maps	Maps, Globes and Prizes: Number of Globes	Maps, Globes and Prizes: Number of Schools giving Prizes	Number of Trees planted on Arbor Day
54	....	.....	.....	.....	.....	417	...	.....	.....	...	.....	.....	.....	11	2	1	....
55	....	.....	.....	.....	.....	627	...	.....	.....	...	.....	937	.....	32	5	2	....
56	....	.....	.....	.....	.....	.....	...	.....	.....	...	.....	.....	.....	8	1	1	....
57	....	.....	.....	.....	.....	237	...	.....	.....	...	.....	127	.....	8	3	1	....
58	....	.....	.....	.....	.....	200	...	.....	.....	...	.....	.....	.....	7	1	.....	....
59	....	.....	.....	.....	.....	.....	...	.....	.....	...	.....	.....	36	12	1	1	....
60	....	.....	.....	.....	.....	214	...	.....	.....	...	.....	.....	.....	13	1	.....	....
61	....	.....	.....	.....	.....	.....	...	.....	.....	...	.....	.....	.....	17	3	1	....
62	....	.....	.....	.....	.....	145	...	.....	.....	...	.....	.....	.....	11	1	1	....
63	....	.....	.....	.....	.....	.....	...	.....	.....	...	.....	.....	.....	10	2	1	....
64	....	.....	.....	.....	.....	.....	...	69	.....	...	.....	.....	.....	11	1	1	....
65	....	.....	.....	.....	.....	.....	...	.....	.....	...	.....	.....	.....	5	1	.....	....
66	....	.....	.....	.....	.....	.....	...	.....	.....	...	.....	.....	.....	10	1	.....	....
	50	50	10	.....	33	7,960	...	69	49	2	489	1,966	235	976	127	31	52
1	268	285	177	156	475	10,433	...	396	218	1	1,731	1,340	288	2,665	316	117	283
2	683	771	565	679	798	4,865	1	736	693	237	472	3,603	629	1,308	223	36	22
3	50	50	10	.....	33	7,960	...	69	49	2	489	1,966	235	976	127	31	52
4	18	18	15	17	17	514	...	.....	18	...	.....	131	.....	152	19	6	8
5	1,019	1,124	767	852	1,323	23,772	1	1,201	978	240	2,692	7,040	1,152	5,101	685	190	365
6	1,623	1,594	1,429	1,034	1,690	24,208	213	1,355	1,331	403	2,409	8,836	3,325	4,923	667	185	393
7	....	.....	.....	.....	.....	.....	...	.....	.....	...	283	.....	.....	178	18	5	....
8	604	470	662	182	367	436	212	154	353	163	.....	1,796	2,173	.....	.....	.....	28
9	1.45	1.6	1.09	1.21	1.88	33.93	...	1.71	1.39	.34	3.84	10.05	1.64	*9.3	*1.25	34.67	....

* To each School.

CONTINUATION

I. TABLE H—FINAN-

Continuation Schools	Receipts						Ex-
	Legislative Grants	Municipal Grants (county)	Municipal Grants (local)	School Fees	Balances and other sources	Total Receipts	Teachers' Salaries
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
1 Acton	527 51	527 51	1,010 00	222 50	228 70	2,516 22	2,150 68
2 Agincourt	270 70	270 70	703 78	121 00	1,000 06	2,366 24	1,000 00
3 Alvinston	546 42	1,337 61	539 76	420 00	.....	2,843 79	2,255 00
4 Arkona	213 33	341 45	.....	101 00	314 22	970 00	900 00
5 Ayr	502 40	627 98	942 90	221 00	677 73	2,972 01	1,873 74
6 Bancroft	635 35	635 35	1,004 55	.....	.....	2,275 25	1,797 25
7 Bath	425 95	600 95	751 60	70 00	155 00	2,003 50	1,600 00
8 Beaverton	549 75	649 75	1,283 94	317 00	24 25	2,824 69	2,210 32
9 Beeton	423 49	619 49	2,478 80	225 00	12 00	3,758 78	1,655 00
10 Belmont	556 30	1,427 60	600 00	503 00	17 69	3,104 59	2,044 25
11 Blenheim	538 78	638 78	1,155 14	211 00	.....	2,543 70	1,856 00
12 Blind River	915 20	.....	1,159 55	264 00	.....	2,278 75	1,700 00
13 Blyth	350 30	615 60	798 17	223 75	376 58	2,364 40	1,383 95
14 Bothwell	437 95	537 95	839 82	205 00	19 01	2,039 73	1,650 00
15 Bowesville	229 30	229 30	525 00	13 50	10 20	1,007 30	850 00
16 Bracebridge	1,116 40	.....	2,688 60	342 50	.....	4,147 50	3,842 50
17 Bridgeburg	512 13	612 13	2,075 97	.....	5 00	3,205 23	2,073 52
18 Bruce Mines	1,205 97	.....	12,176 14	.....	1 70	13,383 81	1,970 00
19 Brussels	573 64	1,405 17	300 00	472 50	791 49	3,542 80	2,100 00
20 Burk's Falls	1,066 60	.....	1,496 59	141 00	17 00	2,721 19	2,108 00
21 Burlington	542 45	542 45	1,919 47	368 00	.....	3,372 37	2,500 00
22 Cannington	627 20	630 20	868 60	411 00	.....	2,537 00	1,945 00
23 Cardinal	458 70	608 70	1,132 12	226 00	.....	2,425 52	1,750 00
24 Carp	498 95	498 95	600 00	519 00	1,558 02	3,674 92	1,900 00
25 Chapleau	940 50	.....	1,450 00	.....	573 80	2,964 30	1,950 00
26 Claremont	368 30	468 30	1,025 32	228 00	125 59	2,215 51	1,676 79
27 Clifford	495 26	652 76	978 47	219 50	47 15	2,393 14	1,700 00
28 Cochrane	.....	.....	659 27	.....	.....	659 27	320 00
29 Coldwater	505 75	880 75	950 00	150 00	60 35	2,546 85	1,890 00
30 Comber	407 64	.....	400 00	154 00	756 65	1,718 29	1,500 00
31 Cookstown	517 90	707 90	455 00	163 50	788 98	2,633 28	1,810 63
32 Creemore	410 64	559 64	1,134 42	240 00	13 00	2,357 70	1,700 00
33 Delaware	235 11	235 11	703 06	208 50	258 22	1,680 00	1,000 00
34 Delhi	265 97	365 97	571 53	65 00	.....	1,268 47	1,020 39
35 Drayton	668 86	732 24	1,711 53	563 75	.....	3,676 38	2,875 00
36 Dresden	552 21	538 58	1,158 06	173 32	51 44	2,473 61	2,050 00
37 Drumbo	338 77	488 77	600 00	82 75	586 07	2,096 36	1,400 00
38 Dryden	513 10	.....	984 08	11 00	.....	1,508 18	1,200 00
39 Eganville	484 70	484 20	1,059 46	24 33	344 23	2,396 92	1,800 00
40 Eganville(R.C.S.S)	456 70	456 10	342 68	42 00	572 76	1,870 24	1,500 00
41 Elmira	516 71	645 89	978 94	466 15	.....	2,607 69	1,910 60
42 Elmvale	.....	913 51	7,826 73	66 50	.....	8,806 74	701 98
43 Ennismore	470 00	470 00	500 00	576 00	42 93	2,058 93	1,790 00
44 Erin	369 85	569 85	932 50	262 00	.....	2,134 20	1,541 25
45 Exeter	550 35	1,366 05	1,237 50	731 00	186 16	4,071 06	3,072 90
46 Fenelon Falls	433 00	433 00	1,416 04	117 00	27 00	2,426 04	2,035 00
47 Finch	529 80	794 70	650 00	373 00	2,368 22	4,715 72	1,875 00
48 Fingal	511 30	1,283 13	500 00	73 00	2,238 50	4,605 93	1,900 00
49 Fitzroy Harbour	399 00	499 00	300 00	110 50	349 30	1,657 80	1,420 00
50 Fort Frances	1,109 70	.....	2,227 28	.....	598 17	3,935 15	2,349 20

SCHOOLS
CIAL STATEMENT

penditure

	Buildings, Sites and all permanent improvements	Repairs to school accommodations	Library, scientific apparatus, maps, etc., typewriters, drawing models and equipment for physical culture	School books, stationery, fuel, examinations and other expenses	Total Expenditure	Charges per year for Tuition
	$ c.	$ c.	$ c.	$ c.	$ c.	
1	.....	.....	40 10	302 80	2,493 58	Res. $5 ; non-res. $7.
2	14 00	9 25	118 36	947 24	2,088 85	$10.
3	155 92	.....	.....	432 86	2,843 78	Res. F. I free ; all others $10.
4	.....	.....	6 05	63 95	970 00	$10.
5	.....	.....	109 25	226 52	2,209 51	$10.
6	.....	.....	87 18	178 00	2,062 43	Free.
7	.....	15 00	92 50	296 00	2,003 50	Res. free ; non-res. $10.
8	.....	10 10	71 91	532 36	2,824 69	$10.
9	1,654 67	.....	175 00	179 87	3,664 54	Res. F. I free ; all others $10.
10	45 25	79 38	82 39	853 52	3,104 59	$10.
11	32 50	45 00	66 40	543 17	2,543 07	Res. free ; non-res. $10.
12	.....	53 75	75 00	450 00	2,278 75	$10.
13	.....	194 32	77 95	429 95	2,086 17	$7.50.
14	.....	7 96	62 59	185 80	1,906 35	Res. free ; non-res. $10.
15	.....	.....	55 59	95 83	1,001 42	$5.
16	.....	.....	.....	305 00	4,147 50	Res. free ; non-res. I $10, II $12.50, III $15.
17	.....	52 20	590 94	488 57	3,205 23	Free.
18	10144 39	.....	433 35	626 11	13,173 85	Free.
19	.....	.....	30 15	268 60	2,398 75	Res. F. I $5, II $7.50; all others $10.
20	340 27	.....	50 00	209 98	2,708 25	$5.
21	47 63	67 58	148 82	608 34	3,372 37	$10.
22	20 00	75 00	22 00	475 00	2,537 00	$10.
23	175 00	67 40	211 62	177 75	2,381 77	$10.
24	.....	.....	166 52	1,115 03	3,181 55	Res. $5 ; Tp. $15 ; others $20.
25	551 51	72 76	100 00	228 00	2,902 27	Free.
26	98 00	54 92	75 75	265 17	2,170 63	Res. F. I free ; all others $15.
27	.....	22 30	162 55	508 29	2,393 14	$10.
28	.....	.....	339 27	.....	659 27	Free.
29	.....	18 00	129 44	381 68	2,419 12	$10.
30	.....	.....	.....	28 79	1,528 79	$10.
31	29 99	45 49	.....	160 00	2,046 11	$7.50.
32	136 40	.....	.....	521 30	2,357 70	$10.
33	13 67	.....	102 19	201 75	1,317 61	Res. $10 ; non-res. $12.
34	.....	65 65	81 29	93 26	1,260 59	Res. free, non-res. $10.
35	150 07	.....	229 89	421 42	3,676 38	Res. F. I free, II $10, III $12.50 ; non-res. $15.
36	.....	9 67	.....	400 31	2,459 98	Res. L. Sch. free, M. $5 ; non-res. L. $6, M. $10.
37	.....	.....	.....	218 60	1,618 60	$5.
38	100 00	.....	51 64	146 04	1,497 68	Res. free ; non-res. $10.
39	71 68	.....	106 06	392 42	2,370 16	Res. free ; non-res. $10.
40	9 02	32 83	15 23	198 43	1,755 51	Res. free ; non-res. $10.
41	.....	2 00	148 90	546 19	2,607 69	Res. F. I free ; all others $10.
42	5,134 00	.....	444 37	.....	6,280 35	Res. $5 ; non-res. $10.
43	.....	.....	43 81	219 88	2,053 69	$20.
44	34 25	.....	98 20	417 70	2,091 40	Res. F. I free ; non-res. F. I $4.50 ; all others $9.
45	32 13	.....	42 81	497 42	3,645 26	Res. F. I free ; all others $10.
46	.....	.....	51 98	339 06	2,426 04	Res. free ; non-res. $10.
47	837 19	13 35	248 30	1,741 88	4,715 72	$10.
48	450 00	49 17	49 95	1,980 05	4,429 17	Res. free ; non-res. $10.
49	.....	.....	.....	116 00	1,536 00	$10.
50	317 86	200 00	107 33	781 01	3,755 40	Free.

CONTINUATION

I. TABLE H—FINAN-

Continuation Schools.—Con.	Receipts						Ex-
	Legislative Grants	Municipal Grants (county)	Municipal Grants (local)	School Fees	Balances and other sources	Total Receipts	Teachers' Salaries
	$ c.	$ c.	$ c.	$ c.	$ c	$ c.	$ c.
51 Frankford	467 20	638 63	1,008 79	220 00	584 14	2,918 76	1,800 00
52 Gore Bay	1,032 40	.....	760 64	449 00	.....	2,242 04	1,889 64
53 Grand Valley	503 63	968 51	206 97	319 00	21 00	2,019 11	1,550 00
54 Hanover	561 06	.....	1,071 40	341 50	495 07	2,469 03	1,812 85
55 Harrow	443 70	200 00	1,342 25	61 00	.....	2,046 95	1,610 00
56 Havelock	477 50	477 50	1,287 52	45 00	.....	2,287 52	1,900 00
57 Highgate	531 99	631 99	1,168 70	272 50	37 70	2,642 88	2,080 00
58 Huntsville	1,127 30	.....	1,700 00	245 75	175 22	3,248 27	2,415 00
59 Jarvis	271 02	200 00	617 87	73 50	.....	1,162 39	1,000 00
60 Jockvale	225 50	525 50	350 00	26 50	110 86	1,238 36	820 00
61 Kars	424 30	424 30	974 90	50 25	.....	1,873 75	1,549 30
62 Keewatin	1,094 00	.....	2,132 78	.....	.....	3,226 78	2,360 00
63 Kenmore	453 20	453 20	807 64	458 75	98 00	2,270 79	1,650 00
64 Kinburn	361 85	400 00	1,370 57	219 00	1,145 83	3,497 25	1,376 31
65 Lakefield	539 60	539 60	1,925 00	.....	56 16	3,060 36	2,200 00
66 Lanark	469 00	469 00	883 33	149 00	1,071 74	3,042 07	1,650 00
67 Lansdowne	222 05	522 05	670 70	37 20	481 36	1,933 36	825 00
68 Little Current	489 20	.....	1,306 22	10 00	.....	1,805 42	1,025 00
69 Lucknow	525 90	1,051 80	1,117 00	415 00	127 96	3,237 66	2,250 00
70 Malakoff	313 05	313 05	662 32	55 50	504 84	1,848 76	1,554 28
71 Manitowaning	445 20	.....	475 00	194 00	30 91	1,145 11	950 00
72*Manotick	.....	.....	234 00	.....	.....	234 00	186 50
73†Massey	.....	.....	364 40	23 00	8 00	395 40	320 00
74 Maxville	478 75	718 12	900 00	355 50	18 00	2,470 37	1,800 00
75 Melbourne	462 80	777 42	652 13	202 00	61 11	2,155 46	1,763 75
76 Merlin	417 73	517 23	664 00	273 50	13 00	1,885 46	1,545 00
77 Merrickville	452 65	602 65	772 35	48 00	300 00	2,175 65	1,700 00
78 Metcalfe	462 90	962 90	232 04	245 00	25 11	1,927 95	1,700 00
79 Millbrook	472 10	822 10	700 00	.....	131 92	2,126 12	1,600 00
80 Milton	537 44	537 44	1,035 84	933 00	37 51	3,081 23	2,500 00
81 Mount Albert	511 95	511 95	850 59	249 00	39 95	2,163 44	1,975 00
82 Navan	349 40	490 00	1,250 87	10 00	578 56	2,678 83	1,280 00
83 New Hamburg	543 04	678 80	1,307 16	171 00	.....	2,700 00	2,250 00
84 New Liskeard	1,156 90	.....	1,900 00	169 50	422 27	3,648 67	2,200 00
85†New Toronto	.....	.....	640 00	.....	.....	640 00	640 00
86 North Augusta	453 15	650 00	412 52	201 00	39 59	1,756 26	1,625 00
87 North Gower	457 00	457 00	1,301 91	142 00	120 15	2,478 06	1,670 00
88 Norwich	525 40	675 40	1,220 56	185 35	109 36	2,716 07	1,900 00
89 Odessa	457 00	616 20	800 00	83 00	690 27	2,646 47	1,700 00
90 Oil Springs	487 03	737 03	759 78	277 50	.....	2,261 34	1,840 00
91 Orono	488 95	788 95	929 28	.....	1,256 31	3,463 49	1,750 00
92 Paisley	514 55	1,029 10	573 70	407 00	.....	2,524 35	1,848 50
93 Pakenham	519 00	519 00	1,100 00	423 00	2,097 43	4,658 43	2,050 00
94 Palmerston	532 90	680 40	1,607 78	80 00	.....	2,901 08	2,125 00
95 Plattsville	487 17	592 17	941 48	244 25	55 61	2,320 68	1,820 00
96 Port Burwell	497 90	1,244 75	500 00	.....	835 95	3,078 60	1,915 00
97 Port Colborne	564 25	564 25	2,000 00	.....	666 34	3,794 84	2,180 00
98 Powassan	531 60	.....	500 00	200 60	209 65	1,441 85	1,000 00
99 Princeton	352 80	502 80	1,200 00	37 50	1,064 95	3,158 05	1,760 00

* Opened in October. † Opened in September.

SCHOOLS—Continued

CIAL STATEMENT—Continued

penditure

	Buildings, Sites and all permanent improvements	Repairs to school accommodations	Library, scientific apparatus, maps, etc., typewriters, drawing models and equipment for physical culture	School books, stationery, fuel, examinations and other expenses	Total Expenditure	Charges per year for Tuition
	$ c.	$ c.	$ c.	$ c.	$ c.	
51	206 59	21 09	82 51	339 75	2,449 94	Res. free; non-res. $10.
52	.....	14 86	90 25	247 29	2,242 04	$10.
53	16 60	.....	42 62	408 61	2,017 83	Res. F. I free; all others $8.
54	68 20	8 39	54 81	486 05	2,430 30	Res. F. I free; all others $10.
55	45 00	.....	141 66	238 53	2,035 19	Res. free; non-res. $10.
56	.....	.....	71 80	248 64	2,220 44	Res. F. I free, others $3; non-res. $6.
57	.....	.....	130 50	112 50	2,323 00	Res. I free, II and III $7.50; non-res. I $5. II and III $10.
58	55 00	55 03	107 38	440 75	3,073 16	Res. F. I free, II $5; all others $10.
59	.....	.....	66 14	87 50	1,153 64	Res. free : non-res. $7.50.
60	27 85	.....	16 60	333 10	1,197 55	Res. F. I free; all others $5.
61	8 50	.....	.....	315 95	1,873 75	Res. free; non-res. $7.50.
62	.....	14 58	81 35	708 51	3,164 44	Free.
63	.....	3 82	.....	616 08	2,269 90	$12.50
64	367 45	.....	486 34	936 55	3,166 65	Res. free; non-res. $20.
65	.....	15 36	200 00	628 50	3,043 86	Free.
66	.....	8 85	11 00	272 26	1,942 11	Res. free; non-res. $10.
67	.....	11 25	50 35	274 12	1,160 72	Res. free; non-res. $5.
68	563 15	.....	150 00	60 00	1,798 15	Res. free; non-res. $10.
69	180 00	20 00	60 00	620 00	3,130 00	Res. and County $5; others $10.
70	25 14	.....	109 98	159 36	1,848 76	Res. free; non-res. $10.
71	.....	10 62	52 41	85 03	1,098 06	$10.
72	.....	.....	.....	30 12	216 62	Res. free; non-res. $7.50.
73	.....	.....	45 00	30 40	395 40	Res. $5; non-res. $10.
74	8 03	.....	95 52	517 71	2,421 26	Res. $5; non-res. $10.
75	.....	39 10	70 32	209 30	2,082 47	Res. free; non-res. $10.
76	75 00	.....	31 66	6 26	1,657 92	$10.
77	.....	.....	.....	273 15	1,973 15	Res. free; non-res. $5.
78	.....	.....	52 29	157 80	1,910 09	$10.
79	.....	52 00	.....	344 58	1,996 58	Free.
80	28 50	46 00	.....	487 98	3,062 48	Res. $10; non-res. $15.
81	.....	.....	38 88	134 28	2,148 16	$10.
82	169 50	.....	126 03	348 27	1,923 80	Res. free; non-res. $10.
83	.....	.....	.....	450 00	2,700 00	Res. free; non-res. $10.
84	.....	8 55	254 31	777 54	3,240 40	Res. free; non-res. $15.
85	.....	.....	.....	640 00	640 00	Res. free; non-res. $5.
86	.....	.....	.....	119 24	1,744 24	Res. I free; all others $10.
87	16 00	57 50	98 42	510 21	2,352 13	Res. free; non-res. $10.
88	200 00	.....	93 16	508 64	2,701 80	Res. $3; non-res. $6.
89	.....	202 58	57 33	340 45	2,300 36	Res. free; non-res. $10.
90	39 24	25 00	89 79	253 81	2,247 84	Res. $5; non-res. $10.
91	24 20	13 54	106 52	413 44	2,307 70	Free.
92	100 85	25 00	15 00	535 00	2,524 35	F's I & II $7.50 ; III $12.50.
93	.....	95 00	29 17	235 23	2,409 40	$10.
94	71 00	243 54	53 82	381 72	2,875 08	Res. free; non-res. $5.
95	.....	.....	139 63	347 05	2,306 68	Res. $6; non-res. $12.
96	50 60	.....	55 60	91 62	2,112 82	Free.
97	.....	19 05	.....	320 90	2,519 95	Free.
98	.....	.....	50 00	110 00	1,160 00	$10.
99	.....	15 00	30 27	324 03	2,129 30	Res. free; non-res. $4.50.

CONTINUATION

I. TABLE H—FINAN-

Continuation Schools —concluded	Receipts						Ex-
	Legislative Grants	Municipal Grants (county)	Municipal Grants (local)	School Fees	Balances and other sources	Total Receipts	Teachers' Salaries
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
100 Richmond	241 00	241 00	429 10	142 50	.....	1,053 60	900 00
101 Ridgeway	593 97	609 80	1,573 59	.....	14 00	2,791 36	2,515 50
102 Ripley	516 46	1,032 92	500 00	642 50	116 66	2,808 54	1,957 50
103 Rodney	519 30	1,298 25	433 87	37 00	16 00	2,304 42	1,900 00
104 Russell	464 00	664 00	1,166 00	.....	2,594 93	4,888 93	1,720 00
105 St. George	534 50	834 56	1,100 00	145 40	88 70	2,703 10	2,010 00
106 Schomberg	241 15	241 15	300 00	119 50	75 93	977 73	871 50
107 Southampton	549 50	1,099 00	578 92	250 40	452 81	2,930 63	1,900 00
108*South Mountain	.....	.....	800 00	23 00	200 00	1,023 00	365 00
109 South Porcupine	515 70	.....	1,675 00	.....	68 93	2,259 63	1,050 00
110 Spencerville	421 65	571 65	700 00	224 50	640 66	2,558 46	1,680 00
111 Springfield	551 25	1,378 12	236 19	67 00	609 56	2,842 12	2,000 00
112 Stayner	522 35	728 35	1,000 00	304 50	1,168 81	3,724 01	2,000 00
113 Stella	210 00	385 00	300 00	355 00	677 90	1,927 90	1,085 00
114 Stouffville	492 90	492 90	744 72	519 50	.....	2,250 02	1,850 00
115 Sturgeon Falls	567 50	.....	2,000 00	59 00	142 20	2,768 70	1,000 00
116 Sutton	360 80	360 80	799 78	319 00	585 67	2,426 05	1,400 00
117 Tamworth	475 90	650 90	799 74	271 00	153 71	2,351 25	1,760 00
118 Tara	534 35	1,068 70	446 80	349 00	.....	2,398 85	1,830 00
119 Tavistock	534 15	684 15	4,813 76	263 00	326 48	6,621 54	2,120 00
120 Teeswater	469 45	938 90	700 00	266 00	725 47	3,099 82	1,876 57
121 Thamesville	502 80	602 80	1,003 06	210 00	14 80	2,333 46	1,923 10
122 Thessalon	835 30	.....	2,597 94	107 50	.....	3,540 74	1,940 75
123 Thornbury	518 95	778 43	1,153 08	292 50	23 00	2,765 96	1,856 55
124 Thorndale	309 20	309 20	2,209 04	276 00	724 16	3,827 60	2,034 50
125 Tilbury	413 00	513 00	1,000 00	165 00	572 23	2,663 23	1,500 00
126 Tottenham	508 34	690 84	872 20	254 00	9 80	2,335 18	1,900 00
127 Warkworth	493 45	893 45	1,107 02	374 00	29 00	2,896 92	1,900 00
128 Webbwood	536 20	.....	777 53	.....	.....	1,313 73	1,025 00
129*Westboro'	.....	.....	1,327 17	.....	.....	1,327 17	340 00
130 West Lorne	541 09	1,352 72	1,363 04	.....	651 18	3,903 03	1,945 50
131 Westmeath	269 05	269 05	484 61	189 50	.....	1,212 21	1,100 00
132 Westport	365 35	512 64	1,185 32	50 00	35 00	2,148 31	1,669 75
133 Westport(R.C.S.S)	283 20	421 04	3,000 00	34 00	493 20	4,231 44	1,085 00
134†Wheatley	435 50	572 20	.....	246 30	.....	1,254 00	1,060 62
135 Winona	256 67	456 67	604 13	.....	.....	1,317 47	1,000 00
136 Wolfe Island	195 15	195 15	400 00	114 00	644 44	1,548 74	750 00
137 Wroxeter	464 81	1,280 07	.....	267 25	29 35	2,041 48	1,525 00
1 Totals, 1917	65,732 84	72,541 21	155,173 97	26,179 55	40,803 58	360,431 15	228,361 92
2 Totals, 1916	64,753 20	69,725 89	133,468 87	28,625 22	41,279 10	337,852 28	224,463 58
3 Increases	979 64	2,815 32	21,705 10	.....	.....	22,578 87	3,898 34
4 Decreases	.....	.....	.....	2,445 67	475 52	.....	.....
5 Percentages	18.24	20.12	43.05	7.26	11.32	.....	70.35

*Opened in September. †Closed in June.

SCHOOLS—Continued

CIAL STATEMENT—Concluded

penditure

	Buildings, Sites and all permanent improvements	Repairs to school accommodations	Library, scientific apparatus, maps, etc., typewriters, drawing models and equipment for physical culture	School books, stationery, fuel, examinations and other expenses	Total Expenditure	Charges per year for Tuition
	$ c.	$ c.	$ c.	$ c.	$ c.	
100	.....	25 57	22 10	101 53	1,049 20	Res. $5; non-res. $10.
101	.....	.....	130 86	80 00	2,726 36	Res. free; non-res. $10.
102	230 05	1 00	6 70	361 68	2,556 93	Res. $8; non-res. $10.
103	37 83	.....	78 66	269 07	2,285 56	Res. and County, free; others $10.
104	.....	8 30	36 70	214 91	1,979 91	Free.
105	140 00	.....	43 87	397 98	2,591 85	Res. free; non-res. $12.
106	.....	.....	.....	106 23	977 73	F. I res. free; non-r. $5; F. II $10.
107	.....	.....	69 35	824 08	2,793 43	$8.
108	158 80	40 75	211 99	113 00	889 54	Res. free; non-r. $5.
109	166 00	.....	399 00	112 11	1,727 11	Free.
110	.....	.....	59 22	223 08	1,962 30	$10.
111	.....	31 12	78 03	295 19	2,404 34	Res. F. I free; all others $10.
112	45 65	19 21	29 51	354 51	2,448 88	Res. $5; non-res. $10.
113	63 80	.....	91 94	149 84	1,390 58	$20.
114	.....	.....	294 78	80 00	2,224 78	$15.
115	581 20	64 92	.....	813 58	2,459 70	$10.
116	132 28	.....	190 21	314 20	2,036 69	$10.
117	.....	.....	29 07	304 97	2,094 04	Res. free; non-res. $13.
118	86 00	.....	172 61	292 64	2,381 25	$10.
119	2,486 19	.....	35 82	570 49	5,212 50	Res $5; non-res. $10.
120	37 25	14 00	93 25	116 75	2,137 82	F. I $5; others $10.
121	27 30	28 25	73 80	266 61	2,319 06	Res. free; non-res. $10.
122	1,234 45	13 71	16 15	325 68	3,530 74	Res. free; non-res. $10.
123	220 00	60 00	22 80	583 69	2,743 04	Res. $5; non-res. $10.
124	300 00	.....	54 14	1,404 95	3,793 59	$10.
125	.....	35 40	95 00	169 00	1,799 40	$10.
126	27 56	12 12	14 00	243 41	2,197 09	$10.
127	.....	.....	13 00	983 92	2,896 92	F. I res. $6, non-res. $7.50; II res. $9, non-res. $10.50.
128	.....	.....	28 75	234 98	1,288 73	Free.
129	487 00	.....	267 17	233 00	1,327 17	Free.
130	606 79	.....	500 00	313 75	3,366 04	Free.
131	.....	.....	27 36	76 60	1,203 96	Res. F. I free; all others $10.
132	.....	.....	380 12	95 34	2,145 21	Res. free; non-res. $5.
133	2,228 20	.....	58 37	185 00	3,556 57	Res. free; non-res. $5.
134	90 00	5 55	.....	90 65	1,246 82	$20.
135	.....	.....	.....	100 68	1,100 68	Free.
136	.....	.....	62 08	298 24	1,110 32	$15.
137	.....	.....	107 80	171 05	1,803 85	F. I $5; II $7.50; III $10.
1	32,328 15	2,648 69	12,735 26	48,546 90	324,620 92	57 free; 80 not free.
2	25,109 39	3,416 27	10,234 54	42,923 97	306,147 75	53 free; 83 not free.
3	7,218 76	.....	2,500 72	5,622 93	18,473 17	4 free.
4	.....	767 58	.....	.....	.....	3 not free.
5	9.96	.81	3.92	14.95	.....	41.60 free; 58.39 not free.

CONTINUATION

II. TABLE I—SCHOOLS UNDER PUBLIC SCHOOL

Continuation Schools	Schools under Public or Separate School Board	Value of General										
		Library	Scientific Apparatus	Charts, Maps and Globes	Art Models	Typewriters	Biological Specimens	Equipment for Physical Culture	Gymnasium, not including equipment	Museum	Aquarium or Herbarium
		$	$	$	$	$	$	$	$	$	$
1 Acton	1	307	235	22	35	....	26	12	.....	.....	.....
2 Agincourt	1	167	153	39	13	....	33	.....	.....	.....	.....
3 Alvinston	1	260	369	91	34	....	42	.....	.....	.....	.....
4 Arkona	1	167	147	25	25	....	11	1	.....	.....	.....
5 Ayr	....	228	359	42	37	....	25	.....	.....	.....	.....
6 Bancroft	1	105	161	56	16	....	6	.....	.....	.....	.....
7 Bath	1	196	238	56	24	....	.....	.....	.....	.....	.....
8 Beaverton	1	215	276	63	47	....	25	15	.....	.....	.....
9 Beeton	1	54	241	14	22	....	.....	.....	.....	.....	.....
10 Belmont	1	253	531	38	16	....	24	.....	.....	.....	.....
11 Blenheim	1	426	528	71	52	....	32	16	.....	.....	.....
12 Blind River	1	176	202	20	19	....	.....	.....	.....	.....	.....
13 Blyth	1	154	261	81	34	....	16	.....	.....	.....	6
14 Bothwell	1	200	426	28	25	....	22	.....	.....	.....	.....
15 Bowesville	1	190	153	30	44	....	.....	.....	.....	.....	.....
16 Bracebridge	1	477	634	78	50	....	20	.....	.....	.....	.....
17 Bridgeburg	1	371	527	52	69	....	48	12	.....	.....	.....
18 Bruce Mines	1	54	283	55	42	....	.....	.....	.....	.....	.....
19 Brussels	1	315	256	87	35	....	44	.....	.....	.....	.....
20 Burk s Falls	1	299	349	68	49	....	33	.....	.....	.....	.....
21 Burlington	1	246	311	100	51	....	30	40	.....	.....	.....
22 Cannington	1	219	322	20	44	....	10	22	.....	.....	.....
23 Cardinal	1	287	295	64	50	....	51	.....	.....	.....	.....
24 Carp	1	201	273	.....	18	30	20	.....	.....	.....	.....
25 Chapleau	....	122	226	23	43	8	17	8	.....	.....	6
26 Claremont	1	292	310	61	31	....	15	.....	.....	.....	.....
27 Clifford	1	333	284	74	74	....	22	7	.....	.....	.....
28 Cochrane	1	151	122	6	36	....	24	.....	.....	.....	.....
29 Coldwater	1	200	366	32	37	125	35	.....	.....	.....	.....
30 Comber	1	178	229	63	43	....	24	10	.....	.....	5
31 Cookstown	1	234	346	31	56	....	16	.....	.....	.....	.....
32 Creemore	1	162	196	9	16	....	.....	.....	.....	.....	.....
33 Delaware	1	138	134	28	35	....	25	12	.....	.....	.....
34 Delhi	1	165	148	67	34	....	22	.....	.....	.....	.....
35 Drayton	1	388	497	88	51	....	56	5	.....	.....	.....
36 Dresden	1	303	364	30	44	....	34	17	.....	.....	.....
37 Drumbo	1	200	225	54	42	....	13	.....	.....	.....	.....
38 Dryden	1	95	157	41	33	....	19	9	.....	.....	.....
39 Eganville	1	188	343	41	22	....	.....	15	.....	.....	.....
40 Eganville (R.C.S.S.)	1	429	305	65	58	....	58	500	3,500	.....	3
41 Elmira	1	257	359	36	44	....	23	12	.....	.....	.....
42 Elmvale	1	88	325	42	41	....	19	.....	.....	.....	.....
43 Ennismore	1	237	307	49	42	....	11	30	.....	.....	.....
44 Erin	1	195	242	37	29	....	12	.....	.....	.....	.....
45 Exeter	1	519	547	85	91	150	16	19	.....	25	.....
46 Fenelon Falls	1	237	313	38	37	....	37	.....	.....	.....	.....
47 Finch	1	329	551	31	58	....	50	10	.....	.....	.....
48 Fingal	1	47	164	10	33	....	.....	.....	.....	.....	.....
49 Fitzroy Harbour	1	162	212	24	9	....	.....	.....	.....	.....	.....
50 Fort Frances	1	306	364	61	51	....	31	.....	.....	25	.....

SCHOOLS—Continued

BOARD, VALUE OF EQUIPMENT, ETC.

	Equipment		Religious and other Exercises						Destination of Pupils								
	Pictures	Total value of General Equipment	Schools using authorized Scripture Readings	Schools using the Bible	Schools in which Passages are Memorized	Schools opened with Prayer	Schools closed with Prayer	Commencement Exercises	Commerce	Agriculture	Law, Medicine or the Church	Teaching	The Trades	Overseas Service in the War	Other occupations	Other Continuation or High Schools	Without occupation
	$	$															
1	9	646	.....	1	.....	1	1	1	1	5	....	1	3	....	3	5	....
2	....	405	.....	1	.....	1	....	....	3	6	....	....	2	....	....	3	....
3	....	796	.....	....	.....	1	....	....	2	4	....	5	....	....	3	2	2
4	....	376	1	....	.....	1	....	....	.....	1	.....	....	....	....	....	4	2
5	....	691	.....	....	.....	1	....	....	.....	.....	....	1	....	....	....	5	1
6	....	344	1	....	.....	1	....	....	1	.....	1	4	....	1	1	....	2
7	....	514	1	....	.....	1	....	1	.....	2	....	1	....	1	....	....	1
8	....	641	.....	....	.....	1	....	....	1	.....	1	2	....	....	1	....	....
9	....	311	.....	1	.....	1	....	....	1	2	1	4	....	3	....	2	5
10	20	892	1	....	.....	1	1	1	.....	1	....	6	....	....	1	....	....
11	40	1,165	1	1	.....	1	....	....	.....	3	....	3	....	5	8	4	9
12	13	430	1	1	.....	1	....	....	3	.....	....	3	1	1	1	4	4
13	5	557	.....	1	.....	1	....	....	1	2	....	2	2	....	1	1	1
14	....	701	1	....	.....	1	1	....	2	.....	....	....	2	....	7	2	....
15	....	417	1	....	.....	1	....	....	.....	3	....	....	....	....	1	1	....
16	45	1,304	.....	....	.....	1	....	....	4	2	1	10	5	1	11	3	2
17	....	1,079	.....	1	.....	1	....	....	1	.....	....	2	1	....	8	3	2
18	....	434	.....	1	.....	1	....	1	.....	2	....	2	....	....	1	1	....
19	45	782	1	1	.....	1	....	....	1	2	....	4	1	....	1	3	1
20	27	825	.....	....	.....	1	....	....	1	.....	....	1	....	1	2	....	5
21	....	778	.....	1	.....	1	....	....	3	8	....	4	....	1	5	4	....
22	10	647	.....	....	.....	1	....	1	1	9	1	2	....	....	5	5	8
23	20	767	1	....	.....	1	....	1	1	3	1	4	1	....	....	....	1
24	....	542	1	1	.....	1	....	....	2	10	3	4	....	....	2	1	....
25	4	457	1	....	.....	1	....	....	5	.....	....	....	2	....	....	....	2
26	18	727	1	1	.....	1	....	....	.....	3	1	4	....	....	1	....	....
27	....	794	1	....	.....	1	....	....	2	6	....	....	....	....	1	1	1
28	3	342	.....	1	.....	1	....	....	.....	....	....	....	....	....	....	....	....
29	....	795	.....	1	.....	1	....	....	3	3	....	1	....	....	3	2	2
30	25	577	1	1	.....	1	....	....	4	1	....	....	....	....	1	2	....
31	10	693	.....	1	.....	1	....	....	4	2	....	1	....	....	1	....	1
32	....	383	.....	1	.....	1	....	....	3	.....	....	1	1	....	....	3	1
33	....	372	.....	....	.....	1	1	....	2	3	....	....	....	....	....	7	....
34	....	436	.....	1	.....	1	....	....	4	2	....	....	....	....	....	3	....
35	....	1,085	.....	1	.....	1	....	1	3	10	1	8	....	....	....	3	....
36	....	792	.....	1	.....	1	....	1	5	7	1	4	1	....	1	1	....
37	....	534	1	1	.....	1	1	1	1	1	....	....	2	....	3	4	....
38	....	354	1	1	.....	1	....	....	.....	1	....	....	1	....	....	2	....
39	50	659	.....	1	.....	1	1	1	2	3	1	6	....	2	1	3	....
40	29	4,947	.....	....	.....	1	1	1	2	2	....	11	....	....	1	....	....
41	100	811	.....	....	.....	1	....	....	6	1	....	3	1	....	....	4	....
42	....	515	.....	1	.....	1	....	....	.....	....	....	....	....	....	....	....	....
43	15	691	.....	....	.....	1	1	....	.....	2	....	3	....	....	2	5	....
44	....	515	1	1	.....	1	....	....	4	5	....	1	2	2	2	3	2
45	36	1,488	.....	1	.....	1	....	1	1	4	....	5	....	1	3	5	6
46	9	671	.....	....	.....	1	....	....	2	8	....	5	2	1	....	2	1
47	25	1,054	1	....	.....	1	1	....	.....	5	....	2	....	....	5	....	2
48	....	254	.....	....	.....	1	....	1	.....	.....	2	5	....	1	....	1	....
49	....	407	.....	1	.....	1	....	....	2	3	....	....	....	....	1	1	....
50	12	850	.....	....	.....	1	....	....	4	2	....	1	....	....	6	4	....

CONTINUATION

II. TABLE I—SCHOOLS UNDER PUBLIC SCHOOL

Continuation Schools —Continued	Schools under Public or Separate School Board	Value of General Library	Scientific Apparatus	Charts, Maps and Globes	Art Models	Typewriters	Biological Specimens	Equipment for Physical Culture	Gymnasium, not including Equipment	Museum	Aquarium or Herbarium
		$	$	$	$	$	$	$	$	$	$
51 Frankford	1	207	282	43	36	....	25	14	.....	.....	.....
52 Gore Bay	1	166	315	65	12	....	18	.....	.....	.....	.....
53 Grand Valley	1	226	348	66	41	....	20	.....	.....	.....	.....
54 Hanover	1	378	317	48	40	....	39	22	.....	.....	5
55 Harrow	1	170	226	43	32	....	23	.....	.....	.....	.....
56 Havelock	1	189	267	30	36	....	27	.....	.....	.....	.....
57 Highgate	1	306	300	45	39	....	15	.....	.....	.....	.....
58 Huntsville	1	352	542	88	58	....	28	73	50	.....	.....
59 Jarvis	1	260	160	38	42	....	6	.....	.....	.....	.....
60 Jockvale	1	127	177	35	22	....	15	.....	.....	.....	.....
61 Kars	1	170	220	37	25	....	11	.....	.....	.....	.....
62 Keewatin	1	303	368	76	42	....	11	53	.....	.....	.....
63 Kenmore	1	180	437	38	15	....	30	.....	.....	.....	.....
64 Kinburn	1	207	313	67	.....	.....	.....	30	.....	.....	.....
65 Lakefield	1	214	491	45	31	....	28	.....	.....	.....	.....
66 Lanark	1	388	323	55	41	....	8	27	.....	.....	.....
67 Lansdowne	1	510	183	26	25	....	29	.....	.....	.....	.....
68 Little Current	1	134	146	53	32	....	13	.....	.....	.....	.....
69 Lucknow	1	339	348	34	34	....	45	.....	.....	.....	.....
70 Malakoff	1	107	182	14	6	....	23	.....	.....	.....	.....
71 Manitowaning	1	111	153	33	29	....	9	.....	.....	.....	.....
72 Manotick	1	140	192	39	22	....	.....	.....	.....	.....	2
73 Massey	1	272	162	70	44	....	25	.....	.....	.....	.....
74 Maxville	1	154	250	35	23	....	26	.....	.....	.....	.....
75 Melbourne	1	281	348	58	47	....	24	8	.....	.....	.....
76 Merlin	1	224	216	34	48	....	17	27	.....	.....	.....
77 Merrickville	1	208	248	28	23	....	23	18	.....	.....	.....
78 Metcalfe	1	252	324	49	23	....	18	.....	.....	.....	.....
79 Millbrook	1	372	328	71	47	....	43	.....	.....	.....	.....
80 Milton	1	277	392	59	36	....	50	.....	.....	.....	.....
81 Mount Albert	1	315	339	37	40	....	6	.....	.....	.....	.....
82 Navan	1	136	209	19	28	....	52	.....	.....	.....	.....
83 New Hamburg	1	310	362	65	51	....	70	10	.....	.....	.....
84 New Liskeard	1	348	368	81	37	....	54	.....	.....	.....	.....
85 New Toronto	1	153	188	.....	30	....	35	.....	.....	.....	.....
86 North Augusta	1	233	217	51	22	....	.....	7	.....	.....	.....
87 North Gower	1	231	265	32	27	....	18	7	.....	.....	.....
88 Norwich	1	297	257	68	30	....	42	5	.....	.....	.....
89 Odessa	1	218	329	69	39	....	.....	18	.....	.....	.....
90 Oil Springs	1	207	300	31	40	....	17	.....	.....	.....	.....
91 Orono	1	176	293	22	15	....	.....	.....	.....	.....	.....
92 Paisley	1	209	454	61	58	....	83	23	.....	.....	.....
93 Pakenham	1	242	346	37	57	....	7	.....	.....	.....	.....
94 Palmerston	1	327	247	63	50	....	16	.....	.....	.....	.....
95 Plattsville	1	143	380	33	44	....	32	10	.....	.....	5
96 Port Burwell	1	235	349	47	36	....	19	.....	.....	.....	.....
97 Port Colborne	1	298	443	72	32	....	26	40	.....	.....	.....
98 Powassan	1	136	219	24	22	....	.....	.....	.....	.....	.....
99 Princeton	1	264	164	19	20	....	23	.....	.....	.....	.....
00 Richmond	1	168	171	16	22	....	.....	4	.....	.....	.....

SCHOOLS—Continued

BOARD, VALUE OF EQUIPMENT, ETC.—Continued

Equipment			Religious and other Exercises						Destination of Pupils								
Pictures	Total value of General Equipment		Schools using authorized Scripture Readings	Schools using the Bible	Schools in which Passages are memorized	Schools opened with Prayer	Schools closed with Prayer	Commencement Exercises	Commerce	Agriculture	Law, Medicine or the Church	Teaching	The Trades	Overseas Service in the War	Other occupations	Other Continuation or High Schools	Without occupation
	$	$															
51 ...		607	.....	....	.....	1	....	....	1	3	....	2	4	....	2	1	....
52 ...		576	.....	1	.....	1	....	....	2	1	1	8	....	1	3	4	2
53 ...		701	1	1	.....	1	....	....	6	.....	....	6	....	....	....	4	....
54	67	916	.....	1	.....	1	1	1	.....	3	....	4	2	1	9	4	....
55	26	520	1	1	.....	1	....	....	3	.....	....	....	1	....	9	3	....
56	15	564	.....	1	.....	1	....	....	2	.....	....	1	3	2	....	1	....
57	17	722	1	....	.....	1	....	....	2	10	....	3	....	....	2	1	....
58	20	1,211	.....	1	.....	1	....	....	6	2	....	10	....	....	4	1	3
59 ...		506	1	1	.....	1	1	....	.....	.....	....	....	....	....	5	8	....
60 ...		376	.....	....	.....	1	1	....	2	1	....	1	....	....	....	1	....
61	14	477	1	1	.....	1	....	....	.....	3	....	2	....	....	1	....	1
62 ...		853	.....	1	.....	1	....	....	.....	.....	....	1	1	....	2	5	4
63	3	703	.....	1	.....	1	....	....	.....	2	....	1	....	....	2	1	....
64	17	634	.....	1	.....	1	....	....	1	2	....	2	1	....	2	....	1
65 ...		809	.....	1	.....	1	1	....	1	2	1	10	2	....	1	....	....
66	5	847	1	....	.....	1	....	....	2	4	....	5	2	3	....	7	1
67 ...		773	.....	1	.....	1	1	....	.....	2	....	....	....	....	1	7	2
68	6	384	.....	....	.....	1	....	....	2	.....	....	....	....	....	....	3	....
69	6	806	.....	1	.....	1	....	1	.....	11	....	4	....	....	3	3	....
70	15	347	.....	1	.....	1	....	....	.....	3	....	....	1	....	....	....	....
71 ...		335	.....	1	.....	1	1	....	.....	6	....	3	....	....	2	3	....
72	15	410	1	....	.....	1	1	....	.....	.....	....	....	....	....	....	....	....
73 ...		573	1	1	.....	1	1	1	.....	.....	....	....	....	....	....	....	....
74	20	508	1	1	.....	1	1	....	1	3	1	4	1	....	1	1	6
75	10	776	.....	1	.....	1	....	....	2	3	....	5	....	....	1	2	....
76 ...		566	1	1	.....	1	....	....	1	1	....	....	3	....	....	5	6
77 ...		548	.....	1	.....	1	....	....	3	3	1	3	....	....	1	1	1
78	16	682	.....	1	.....	1	....	....	.....	1	....	3	....	....	2	....	1
79	6	867	.....	1	.....	1	....	....	1	7	....	4	1	....	....	....	....
80 ...		814	.....	....	.....	1	....	....	.....	11	1	2	....	1	4	1	2
81 ...		737	.....	....	.....	1	....	....	1	4	....	1	....	....	9	1	....
82 ...		444	.....	....	.....	1	....	....	.....	5	....	1	....	....	1	1	....
83 ...		868	1	....	.....	1	....	....	3	2	....	3	3	....	3	....	2
84 ...		888	.....	1	.....	1	....	....	4	2	....	3	....	....	8	3	....
85	20	426	.....	1	.....	1	....	1	.....	.....	....	....	....	....	....	....	....
86 ...		530	1	....	.....	1	....	1	.....	1	....	3	....	2	....	....	1
87	4	584	.....	1	.....	1	....	....	1	6	....	....	1	....	2	2	....
88	8	707	1	....	.....	1	....	1	5	13	1	2	2	....	....	6	5
89	7	680	1	1	.....	1	....	....	1	.....	1	1	....	....	....	1	1
90 ...		595	.....	....	.....	1	....	....	2	3	....	1	....	1	7	1	....
91 ...		506	1	1	.....	1	....	....	.....	2	....	....	5	....	....	3	....
92	5	893	.....	1	.....	1	....	....	6	4	....	4	....	....	2	2	....
93 ...		689	.....	1	.....	1	....	...	3	11	1	4	....	....	....	3	2
94	30	753	.....	1	.....	1	....	....	2	1	....	3	....	2	12	2	....
95 ...		647	1	....	.....	1	....	....	2	2	1	1	1	1	1	1	1
96	30	716	1	....	.....	1	....	....	2	4	....	....	....	....	2	3	....
97	22	933	.....	1	.....	1	....	1	4	2	....	1	....	....	5	....	....
98 ...		401	1	1	.....	1	....	....	1	1	....	2	1	....	....	2	1
99 ...		490	1	....	.....	1	....	....	1	1	....	1	....	....	2	1	....
100 ...		381	1	1	.....	1	....	....	2	4	....	....	....	....	....	5	....

CONTINUATION

II. TABLE I—SCHOOLS UNDER PUBLIC SCHOOL

Continuation Schools—Concluded	Schools under Public or Separate School Board	Value of General Library	Scientific Apparatus	Charts, Maps and Globes	Art Models	Typewriters	Biological Specimens	Equipment for Physical Culture	Gymnasium, not including equipment	Museum	Aquarium or Herbarium
		$	$	$	$	$	$	$	$	$	$
101 Ridgeway	1	253	239	55	33	....	22	.....	.....	.....	....
102 Ripley	1	317	291	58	26	....	14	.....	.....	.....	....
103 Rodney	1	241	307	47	50	....	25	6	.....	.....	....
104 Russell	1	199	304	63	34	....	.....	.....	.....	.....	....
105 St. George	.....	263	337	49	50	....	54	.....	.....	.....	....
106 Schomberg	1	174	165	39	23	....	31	.....	.....	.....	....
107 Southampton	1	342	422	71	53	60	15	10	.....	.....	....
108 South Mountain	1	228	246	27	18	....	11	.....	.....	.....	....
109 South Porcupine	1	125	107	35	44	....	27	.....	.....	.....	....
110 Spencerville	1	163	260	37	31	....	16	.....	.....	.....	....
111 Springfield	1	405	602	75	64	....	115	.....	.....	.....	....
112 Stayner	1	218	443	61	39	....	39	18	.....	.....	1
113 Stella	.....	90	220	2	8	....	8	.....	.....	.....	....
114 Stouffville	1	91	273	25	10	....	3	.....	.....	.....	....
115 Sturgeon Falls	1	197	280	41	39	....	.....	.....	.....	.....	....
116 Sutton	1	241	316	67	23	....	9	.....	.....	.....	....
117 Tamworth	*	290	231	33	28	....	18	.....	.....	.....	....
118 Tara	1	237	372	56	58	....	12	.....	.....	.....	....
119 Tavistock	1	276	351	32	16	....	10	.....	.....	.....	....
120 Teeswater	1	265	267	56	46	....	2	.....	.....	.....	....
121 Thamesville	1	358	319	14	51	....	16	.....	.....	.....	....
122 Thessalon	1	297	297	73	26	....	12	.....	.....	.....	....
123 Thornbury	1	196	451	59	50	....	28	29	.....	.....	....
124 Thorndale	.....	300	303	83	44	....	17	4	.....	.....	....
125 Tilbury	1	245	279	36	37	....	10	.....	.....	.....	....
126 Tottenham	1	274	358	32	57	....	14	10	.....	.....	....
127 Warkworth	1	242	298	42	50	....	22	.....	.....	.....	....
128 Webbwood	1	149	221	37	28	.....	.....	.....	.....	.....	....
129 Westboro'	1	103	103	27	34	....	.....	.....	.....	.....	....
130 West Lorne	1	304	380	66	62	....	42	14	.....	.....	....
131 Westmeath	1	182	169	43	28	....	30	.....	.....	.....	....
132 Westport	1	263	453	36	21	....	45	24	.....	.....	....
133 Westport (R.C.S.S.)	1	300	289	41	20	....	5	.....	.....	3	4
134† Wheatley	1	216	302	16	29	....	7	.....	.....	.....	....
135 Winona	1	158	214	21	35	....	.....	10	.....	.....	....
136 Wolfe Island	1	90	117	.....	28	....	8	.....	.....	.....	....
137 Wroxeter	1	382	411	39	27	....	23	9	.....	.....	....
1 Totals, 1917	131	32,046	40,601	6,189	4,912	373	2,966	1,302	3,550	53	37
2 Totals, 1916	129	29,387	38,388	5,785	4,292	410	2,313	908	5,500	25	39
3 Increases	2	2,659	2,213	404	620	....	653	394	.....	28	....
4 Decreases	.....	.....	.....	.....	.....	37	.....	.....	1,950	.....	2
5 Percentages	95.62	34.37	43.55	6.63	5.27	.40	3.18	1.39	3.80	.05	.04

* Consolidated School Board

† Closed in June, 1917

SCHOOLS—Continued

BOARD, VALUE OF EQUIPMENT, ETC.—Concluded

Equipment			Religious and other Exercises							Destination of Pupils								
	Pictures	Total value of General Equipment	Schools using authorized Scripture Readings	Schools using the Bible	Schools in which Passages are Memorized	Schools opened with Prayer	Schools closed with Prayer	Commencement Exercises		Commerce	Agriculture	Law, Medicine or the Church	Teaching	The Trades	Overseas Service in the War	Other occupations	Other Continuation or High Schools	Without occupation
	$	$																
101	....	602	.....	1	....	1	....	....		1	3	1	1	....	1	....	2	....
102	....	706	1	1	....	1	....	....		6	3	....	1	....	....	....	5	4
103	10	686	.....	1	....	1	1	1		5	6	2	3	....	1	....	1	3
104	28	628	1	1	....	1	....	....		2	....	....	....	2	....	2	2	....
105	....	753	.....	....	....	1	....	....		.....	3	1	1	....	....	....	3	1
106	....	432	.....	....	....	1	1	....		.....	4	....	3	....	....	1	1	2
107	15	988	.....	1	....	1	....	....		3	1	1	2	1	3	1	4	3
108	....	530	1	....	....	1	....	....		.....	.....	.....	.....	.....	.....	.....	.....	.....
109	....	338	.....	....	....	1	....	1		1	....	....	....	....	....	2	....	2
110	....	507	.....	....	....	1	....	....		2	7	....	2	1	....	....	3	....
111	....	1,261	1	1	....	1	....	....		1	1	....	....	....	....	....	3	....
112	4	823	.....	....	....	1	....	....		1	2	....	3	....	1	9	2	....
113	....	328	1	....	....	1	....	....		.....	.....	.....	.....	.....	.....	.....	2	....
114	....	402	.....	1	....	1	....	....		1	7	....	1	1	1	....	2	3
115	....	557	.....	1	....	1	....	1		2	.....	....	....	1	....	1	6	....
116	....	656	.....	....	....	1	....	....		4	1	....	3	....	....	2	4	....
117	....	600	.....	....	....	1	....	....		5	9	....	3	3	....	2	1	1
118	12	747	.....	1	....	1	....	....		4	7	....	10	....	1	1	....	....
119	10	695	1	....	....	1	....	1		4	.....	....	3	....	....	1	6	....
120	....	636	.....	1	....	1	....	....		1	5	....	5	1	....	2	....	....
121	50	808	.....	....	....	1	....	....		.....	3	1	5	1	....	16	4	....
122	5	710	.....	1	....	1	....	....		.....	2	....	5	1	1	1	5	1
123	....	813	.....	....	....	1	....	1		2	7	1	2	....	1	....	4	1
124	10	761	.....	1	....	1	....	1		2	1	....	....	....	....	....	3	1
125	....	607	1	....	....	1	....	....		.....	1	....	....	....	....	7	5	1
126	10	755	.....	....	....	1	1	....		2	6	2	6	....	....	1	6	....
127	7	661	1	1	....	1	....	....		.....	.....	12	3	1	....	4	5	1
128	....	435	1	1	....	1	....	....		.....	.....	.....	.....	....	....	1	....	1
129	13	280	1	1	....	1	1	1		.....	.....	.....	.....	....	....	....	....	....
130	6	874	.....	....	....	1	....	....		4	3	....	4	....	....	....	....	1
131	5	457	1	....	....	1	....	....		8	5	.....	....	....	....	1	4	....
132	....	842	.....	1	....	1	....	1		3	1	....	3	....	....	2	1	....
133	25	687	1	1	1	1	1	1		.....	.....	1	1	....	....	3	....	....
134	....	570	.....	....	....	1	....	....		3	3	....	2	1	2	....	3	2
135	15	453	1	1	....	1	....	1		4	3	....	....	....	....	2	6	1
136	....	243	1	....	....	1	1	....		.....	1	....	....	....	....	....	5	1
137	....	891	1	1	....	1	....	1		1	8	....	2	....	1	5	4	4
1	1,199	93,228	54	80	1	137	24	31		238	394	46	315	79	48	272	315	141
2	854	87,901	48	74	3	136	29	22		283	403	42	256	88	....	407	322	249
3	345	5,327	6	6	....	1	....	9		.....	.....	4	59	....	....	....	....	....
4	....	.....	.....	....	2	....	5	....		45	9	.....	....	9	....	135	7	108
5	1.28	.....	39.41	58.39	.72	100	17.51	22.62		12.87	21.32	2.48	17.04	4.27	2.59	14.71	17.04	7.63

CONTINUATION

III. TABLE J—ATTENDANCE, PUPILS IN THE SCHOOLS AND

Continuation Schools	Pupils					Number of Pupils in—		Number of Pupils from—		
	Total number of Pupils on the roll for the year	Number of new pupils admitted during the year	Boys on the roll for the year	Girls on the roll for the year	Average Daily Attendance	Lower School	Middle School	Municipalities forming C.S. District or from School Section	Other Sections	No. of other Sections thus represented
1 Acton	42	10	19	23	31	30	12	31	11	6
2 Agincourt	9	4	5	4	8	9	.....	3	6	5
3 Alvinston	50	16	18	32	41	36	14	12	38	13
4 Arkona	10	10	5	5	8	10	.....	4	6	3
5 Ayr	26	12	9	17	22	20	6	20	6	4
6 Bancroft	42	25	8	34	33	38	4	20	22	14
7 Bath	24	7	11	13	19	17	7	15	9	6
8 Beaverton	38	18	11	27	34	24	14	26	12	7
9 Beeton	35	17	12	23	30	24	11	14	21	4
10 Belmont	66	24	29	37	53	48	18	33	33	11
11 Blenheim	71	37	32	39	48	55	16	37	34	16
12 Blind River	24	15	8	16	11	22	2	24	.....	.....
13 Blyth	37	21	18	19	28	29	8	20	17	5
14 Bothwell	46	14	20	26	37	32	14	19	27	12
15 Bowesville	7	5	..	7	4	7	.....	5	2	2
16 Bracebridge	110	47	34	76	91	93	17	77	33	24
17 Bridgeburg	28	19	7	21	21	25	3	13	15	3
18 Bruce Mines	21	9	7	14	17	18	3	8	13	4
19 Brussels	62	21	18	44	48	46	16	19	43	12
20 Burk's Falls	40	15	15	25	27	29	11	30	10	6
21 Burlington	73	37	34	39	56	57	16	46	27	4
22 Cannington	45	18	20	25	31	32	13	26	19	3
23 Cardinal	35	19	15	20	28	26	9	27	8	4
24 Carp	56	21	18	38	41	37	19	25	31	9
25 Chapleau	35	15	16	19	23	30	5	35	.....	.....
26 Claremont	25	10	12	13	19	17	8	11	14	7
27 Clifford	30	12	6	24	24	18	12	14	16	10
28 Coldwater	27	10	10	17	22	22	5	22	5	3
29 Cochrane	8	8	2	6	5	8	.....	8	.....	.....
30 Comber	19	6	6	13	13	12	7	13	6	4
31 Cookstown	37	20	15	22	29	31	6	20	17	6
32 Creemore	35	20	12	23	20	26	9	10	25	13
33 Delaware	15	7	8	7	12	15	.....	6	9	3
34 Delhi	24	13	7	17	21	24	.....	15	9	5
35 Drayton	65	27	23	42	48	49	16	21	44	20
36 Dresden	57	17	27	30	43	42	15	32	25	11
37 Drumbo	17	5	9	8	12	14	3	15	2	2
38 Dryden	11	5	6	5	8	11	.....	11	.....	.....
39 Eganville	30	11	10	20	21	26	4	23	7	4
40 Eganville (R.C.S.S.)	57	22	28	29	35	34	23	42	15	10
41 Elmira	56	23	26	30	40	39	17	25	31	9
42 Elmvale	26	13	10	16	20	22	4	11	15	8
43 Ennismore	29	8	15	14	22	19	10	13	16	3
44 Erin	44	20	20	24	30	30	14	23	21	7
45 Exeter	102	46	28	74	83	73	29	54	48	14
46 Fenelon Falls	44	18	22	22	35	33	11	32	12	4
47 Finch	56	22	28	28	39	41	15	21	35	12
48 Fingal	19	3	8	11	11	15	4	12	7	4
49 Fitzroy Harbour	16	10	10	6	10	16	.....	6	10	3
50 Fort Frances	28	15	7	21	20	24	4	28	.....	.....

SCHOOLS—Continued

IN THE VARIOUS SUBJECTS, ETC.

	Number of Pupils from Families whose Head is occupied as below—								Number of Pupils in the Various Subjects									
	Commerce	Agriculture	Law, Medicine or the Church	Teaching	The Trades	Labouring occupations	Other occupations	Without occupation	English Grammar	English Composition and Rhetoric	English Literature	Canadian History	British History	Ancient History	Geography	Reading	Arithmetic and Mensuration	Algebra
1	5	10	2	3	9	11	2	....	30	42	42	42	42	12	30	30	31	42
2	....	8	....	....	....	1	....	....	9	9	9	9	4	....	9	9	9	9
3	6	27	....	....	6	4	7	....	36	50	50	50	50	14	36	36	36	50
4	....	7	1	....	1	1	....	....	10	10	10	10	5	....	10	10	10	10
5	1	14	....	....	8	3	....	....	20	26	26	20	8	6	20	20	20	26
6	7	21	1	3	2	4	3	1	38	42	42	42	17	4	38	38	38	42
7	5	9	3	....	4	1	2	....	17	22	22	22	1	5	17	17	17	22
8	12	15	1	....	3	5	....	2	24	38	38	38	25	14	38	24	24	38
9	3	24	1	....	2	2	2	1	24	35	35	35	18	11	24	24	24	35
10	3	55	1	....	3	2	....	2	48	66	66	66	66	18	48	48	48	66
11	6	39	3	....	11	4	7	1	55	71	71	55	71	16	55	55	55	71
12	2	1	....	....	2	6	11	2	22	24	24	24	24	2	22	22	22	24
13	3	17	1	....	6	7	3	....	29	36	36	29	15	7	29	29	29	36
14	4	26	1	....	5	4	6	....	32	46	46	26	27	14	32	32	32	46
15	....	7	....	....	....	....	....	....	7	7	7	7	7	....	7	7	7	7
16	15	27	3	3	20	15	22	5	93	110	110	110	56	17	93	93	93	110
17	2	5	2	....	16	....	3	....	25	28	28	28	9	3	25	25	25	28
18	1	17	....	....	2	....	1	....	18	18	21	12	12	3	18	18	18	21
19	....	34	6	1	7	8	4	2	46	61	61	61	61	16	46	46	46	61
20	1	16	4	....	4	2	13	....	30	39	39	39	39	10	29	29	29	39
21	9	33	6	....	4	10	5	6	57	73	73	73	73	16	57	57	57	73
22	8	19	2	1	3	4	3	5	32	45	45	45	26	13	32	32	32	45
23	3	13	....	....	6	11	2	....	26	35	35	35	35	9	26	26	26	35
24	2	43	3	....	2	1	5	....	37	37	56	56	35	19	37	37	37	56
25	5	1	1	....	27	1	....	....	30	35	35	35	22	5	30	30	30	35
26	1	15	2	....	4	1	2	....	17	25	25	18	15	8	17	17	17	25
27	4	13	2	....	5	....	5	1	18	29	29	29	20	11	18	18	18	29
28	7	7	1	....	4	3	3	2	22	27	27	27	18	5	22	22	22	27
29	1	1	2	....	4	....	....	....	8	8	8	8	2	....	8	8	8	8
30	3	9	1	....	1	2	3	....	12	19	19	19	14	7	12	12	12	19
31	4	27	2	....	2	1	1	....	31	37	37	37	16	6	31	31	31	37
32	7	22	....	....	3	2	....	1	26	35	35	35	23	9	26	26	26	35
33	1	14	....	....	....	....	....	....	15	15	15	15	9	....	15	15	15	15
34	5	5	5	....	7	2	....	....	24	24	24	14	10	....	24	24	24	24
35	8	46	3	....	1	....	7	....	49	65	65	65	33	16	49	49	49	65
36	11	32	1	1	5	4	3	....	42	57	57	21	21	15	42	42	42	57
37	5	3	3	....	3	3	....	....	14	17	17	17	11	3	14	14	14	17
38	2	2	....	....	2	4	1	....	11	11	11	11	6	....	11	11	11	11
39	11	8	....	....	5	1	....	5	26	30	30	30	30	4	26	26	26	30
40	13	22	4	....	3	5	8	2	34	57	57	57	57	23	34	34	34	57
41	3	27	....	1	16	2	6	1	39	56	56	39	37	17	39	39	39	39
42	4	15	1	....	5	....	1	....	22	26	26	26	9	4	22	17	22	26
43	....	28	....	....	1	....	....	....	19	29	29	29	29	10	19	19	19	29
44	4	31	1	....	2	1	4	1	30	44	44	44	44	14	30	30	30	44
45	8	51	2	....	23	6	10	2	64	93	93	93	93	29	64	64	73	93
46	5	12	1	....	16	3	4	3	33	44	44	44	26	11	33	33	33	44
47	3	37	3	....	6	2	5	....	41	56	56	56	32	15	41	41	41	56
48	....	14	1	....	3	....	1	....	15	19	19	19	15	4	15	15	15	19
49	....	12	1	....	....	1	1	1	15	15	15	11	4	....	15	15	15	16
50	6	7	3	....	1	8	2	1	24	28	28	27	11	4	24	24	24	28

CONTINUATION

III. TABLE J—ATTENDANCE, PUPILS IN THE SCHOOLS

Continuation Schools	Number of Pupils in the Various Subjects						
	Geometry	French	German	Latin	Zoology	Botany	Chemistry
1 Acton	30	37	.....	39	30	30	30
2 Agincourt	4	9	.....	9	9	9	4
3 Alvinston	36	26	.....	30	36	36	36
4 Arkona	5	10	.....	9	10	10	5
5 Ayr	14	24	.....	24	20	20	14
6 Bancroft	17	20	.....	20	38	38	17
7 Bath	14	15	.....	15	17	17	14
8 Beaverton	25	30	.....	29	24	24	.....
9 Beeton	18	32	.....	33	24	24	18
10 Belmont	42	61	.....	61	48	48	42
11 Blenheim	38	58	.....	56	55	55	55
12 Blind River	9	24	.....	24	22	22	9
13 Blyth	15	32	.....	32	29	29	15
14 Bothwell	34	34	.....	42	.....	32	34
15 Bowesville	2	7	.....	7	7	7	2
16 Bracebridge	56	90	.....	73	93	93	56
17 Bridgeburg	11	28	.....	28	25	25	11
18 Bruce Mines	12	10	.....	10	.....	18	12
19 Brussels	39	51	.....	46	46	46	15
20 Burk's Falls	25	36	.....	36	29	29	25
21 Burlington	57	72	.....	71	57	57	38
22 Cannington	26	43	.....	42	26	26	26
23 Cardinal	12	28	.....	30	26	26	12
24 Carp	35	50	.....	50	37	37	56
25 Chapleau	22	32	.....	32	30	30	5
26 Claremont	15	25	.....	24	17	17	15
27 Clifford	20	20	.....	27	18	18	11
28 Coldwater	18	26	.....	24	22	22	27
29 Cochrane	2	7	.....	7	8	8	2
30 Comber	14	19	.....	18	12	12	14
31 Cookstown	16	37	.....	37	31	31	16
32 Creemore	23	32	.....	35	26	26	35
33 Delaware	9	12	.....	13	15	15	9
34 Delhi	10	10	.....	24	24	24	10
35 Drayton	33	60	.....	63	49	49	33
36 Dresden	36	56	.....	54	42	42	36
37 Drumbo	11	15	.....	17	.....	.....	11
38 Dryden	6	6	.....	11	11	11	6
39 Eganville	19	10	.....	8	26	26	19
40 Eganville (R.C.S.S.)	39	33	.....	28	20	20	23
41 Elmira	37	52	.....	56	39	39	37
42 Elmvale	9	25	.....	22	22	22	9
43 Ennismore	20	15	.....	17	19	19	10
44 Erin	24	33	.....	44	30	30	14
45 Exeter	52	78	.....	78	64	64	52
46 Fenelon Falls	26	39	.....	40	33	33	11
47 Finch	32	48	.....	50	41	41	32
48 Fingal	15	15	.....	15	15	15	15
49 Fitzroy Harbour	5	14	.....	14	15	15	4
50 Fort Frances	11	26	.....	26	23	23	11

SCHOOLS—Continued

AND IN THE VARIOUS SUBJECTS, ETC.—Continued

	Number of Pupils in the Various Subjects—Continued							Special Courses	
	Physics	Writing	Bookkeeping	Stenography	Typewriting	Art	Physical Culture	Commercial	Agriculture
1	42	30	.....	.....	.....	30	41	.....	.....
2	9	9	.....	.....	.....	9	9	.....	.....
3	50	36	.....	.....	.....	36	50	.....	.....
4	10	10	.....	.....	.....	10	10	.....	.....
5	26	20	.....	.....	.....	20	26	.....	.....
6	42	36	.....	.....	.....	36	42	.....	.....
7	22	17	.....	.....	.....	17	24	.....	.....
8	.....	24	.....	.....	.....	24	38	.....	.....
9	35	24	.....	.....	.....	24	35	.....	.....
10	66	48	.....	.....	.....	48	66	.....	.....
11	55	33	.....	.....	.....	55	66	.....	.....
12	24	22	.....	.....	.....	22	24	.....	.....
13	36	29	.....	.....	.....	29	36	.....	.....
14	46	32	.....	.....	.....	32	46	.....	.....
15	7	7	.....	.....	.....	7	7	.....	.....
16	110	56	.....	.....	.....	93	110	.....	.....
17	28	25	.....	.....	.....	25	28	.....	.....
18	12	18	.....	.....	.....	18	21	.....	.....
19	61	46	.....	.....	.....	48	60	.....	.....
20	40	29	.....	.....	.....	29	40	.....	.....
21	73	57	.....	.....	.....	52	73	.....	.....
22	45	32	.....	.....	.....	26	45	.....	.....
23	35	26	.....	.....	.....	26	25	.....	.....
24	56	37	.....	.....	.....	37	56	.....	.....
25	35	30	.....	.....	.....	30	35	.....	.....
26	25	17	.....	.....	.....	17	25	.....	.....
27	29	18	.....	.....	.....	18	30	.....	.....
28	27	22	5	.....	27	22	27	.....	.....
29	8	8	.....	.....	.....	8	8	.....	.....
30	19	12	.....	.....	.....	12	19	.....	.....
31	37	31	.....	.....	.....	31	37	.....	.....
32	35	26	.....	.....	.....	26	35	.....	.....
33	15	15	.....	.....	.....	15	15	.....	.....
34	24	24	.....	.....	.....	24	24	.....	.....
35	65	49	.....	.....	.....	49	65	.....	49
36	57	42	.....	.....	.....	42	57	.....	.....
37	17	14	.....	.....	.....	14	17	.....	.....
38	11	11	5	.....	.....	11	11	.....	.....
39	30	26	.....	.....	.....	26	30	.....	.....
40	57	34	.....	.....	.....	20	56	.....	.....
41	37	39	.....	.....	.....	35	56	.....	.....
42	22	17	.....	.....	.....	22	26	.....	.....
43	29	29	.....	.....	.....	19	29	.....	.....
44	14	30	.....	.....	.....	30	44	.....	.....
45	93	73	67	23	23	64	102	23	29
46	44	33	.....	.....	.....	33	44	.....	.....
47	56	41	.....	.....	.....	41	56	.....	.....
48	19	15	.....	.....	.....	15	19	.....	.....
49	15	16	.....	.....	.....	15	16	.....	.....
50	11	24	.....	.....	.....	23	28	.....	.....

CONTINUATION

III. TABLE J—ATTENDANCE, PUPILS IN THE SCHOOLS

Continuation Schools—Continued	Pupils					Number of Pupils in—		Number of Pupils from—		
	Total number of pupils on the roll for the year	Number of new pupils admitted during the year	Boys on the roll for the year	Girls on the roll for the year	Average Daily Attendance	Lower School	Middle School	Municipalities forming C. S. District or from School Section	Other Sections	No. of other Sections thus represented
51 Frankford	37	9	18	19	26	21	16	19	18	6
52 Gore Bay	59	13	25	34	24	47	12	40	19	7
53 Grand Valley	53	22	19	34	40	39	14	21	32	7
54 Hanover	61	29	27	34	50	52	9	51	10	8
55 Harrow	30	3	12	18	23	23	7	15	15	8
56 Havelock	33	12	8	25	26	20	13	28	5	5
57 Highgate	50	19	22	28	30	38	12	17	33	9
58 Huntsville	60	20	20	40	47	45	15	49	11	7
59 Jarvis	22	13	12	10	16	22	.....	9	13	7
60 Jockvale	9	6	2	7	6	9	.....	8	1	1
61 Kars	20	7	11	9	13	15	5	10	10	3
62 Keewatin	13	9	5	8	12	11	2	13	.....	.....
63 Kenmore	48	13	25	23	35	32	16	23	25	4
64 Kinburn	35	17	14	21	25	25	10	17	18	9
65 Lakefield	53	19	22	31	40	41	12	38	15	8
66 Lanark	53	19	20	33	36	28	25	30	23	9
67 Lansdowne	15	5	5	10	11	15	.....	7	8	6
68 Little Current	18	8	3	15	11	18	.....	15	3	2
69 Lucknow	78	35	35	43	56	41	37	32	46	13
70 Malakoff	17	4	4	13	11	13	4	11	6	1
71 Manitowaning	16	5	7	9	13	16	.....	4	12	8
72 Manotick	8	4	3	5	6	8	.....	6	2	2
73 Maxville	59	25	22	37	46	50	9	17	42	17
74 Massey	5	5	1	4	4	5	.....	1	4	2
75 Melbourne	34	13	13	21	27	20	14	13	21	9
76 Merlin	37	16	15	22	5	28	9	33	4	2
77 Merrickville	39	15	10	29	30	29	10	22	17	9
78 Metcalfe	35	11	11	24	25	24	11	21	14	8
79 Millbrook	69	31	27	42	41	57	12	21	48	18
80 Milton	76	26	16	60	57	53	23	34	42	17
81 Mount Albert	42	15	21	21	30	30	12	16	26	8
82 Mount Brydges	20	20	4	16	15	20	.....	7	13	7
83 Navan	19	6	5	14	16	16	3	17	2	2
84 New Hamburg	34	10	16	18	25	26	8	20	14	6
85 New Liskeard	41	19	13	28	48	35	6	30	11	9
86 North Augusta	28	9	11	17	20	18	10	15	13	8
87 North Gower	35	15	18	17	26	21	14	12	23	8
88 Norwich	57	23	25	32	34	45	12	24	33	11
89 New Toronto	11	11	3	8	7	11	.....	6	5	2
90 Odessa	31	8	12	19	23	22	9	12	19	15
91 Oil Springs	34	14	14	20	29	27	7	22	12	6
92 Orono	46	13	18	28	41	27	19	26	20	9
93 Paisley	69	34	28	41	58	53	16	38	31	16
94 Pakenham	44	17	15	29	28	33	11	20	24	7
95 Palmerston	55	25	18	37	36	45	10	36	19	7
96 Plattsville	28	8	10	18	25	18	10	17	11	6
97 Port Burwell	24	8	9	15	19	19	5	20	4	3
98 Port Colborne	59	30	29	30	26	49	10	51	8	3
99 Powassan	25	16	14	11	23	25	.....	21	4	3
100 Princeton	18	8	6	12	14	13	5	13	5	2
101 Richmond	22	12	6	16	15	22	.....	11	11	2
102 Ridgeway	34	14	18	16	31	22	12	21	13	7
103 Ripley	78	30	30	48	62	49	29	42	36	12

SCHOOLS—Continued

AND IN THE VARIOUS SUBJECTS, ETC.—Continued

	Number of Pupils from Families whose Head is occupied as below—								Number of Pupils in the Various Subjects									
	Commerce	Agriculture	Law, Medicine or the Church	Teaching	The Trades	Labouring occupations	Other occupations	Without occupation	English Grammar	English Composition and Rhetoric	English Literature	Canadian History	British History	Ancient History	Geography	Reading	Arithmetic and Mensuration	Algebra
51	3	21	1	....	2	5	4	1	21	37	37	37	37	16	21	21	21	37
52	12	34	2	....	4	4	....	3	47	57	57	57	57	10	47	47	45	45
53	....	31	6	....	4	2	4	6	34	53	53	53	32	14	39	39	39	53
54	12	11	6	1	12	8	10	1	52	61	61	61	61	9	52	52	52	61
55	2	19	2	....	1	3	2	1	23	30	30	30	13	7	23	23	23	30
56	5	6	1	....	14	4	1	2	20	33	33	11	22	13	33	20	20	33
57	8	38	1	....	....	....	2	1	38	50	50	50	50	11	38	21	38	50
58	7	10	2	....	10	13	15	3	45	60	60	60	32	15	45	45	45	60
59	....	18	1	....	1	1	1	....	22	22	22	22	10	....	22	22	22	22
60	....	9	....	....	....	....	....	....	9	9	9	9	3	....	9	9	9	9
61	1	14	....	....	4	....	....	1	15	20	20	20	20	5	15	15	15	20
62	....	....	....	....	....	10	3	....	11	13	13	13	4	2	11	11	11	13
63	....	42	2	....	2	2	....	....	32	48	48	48	32	16	32	32	32	48
64	4	25	1	....	....	1	4	....	25	35	35	18	17	10	25	25	25	35
65	2	16	1	....	4	1	29	....	41	53	53	53	35	12	41	41	41	53
66	8	27	4	....	10	....	4	....	28	53	53	53	34	25	28	28	28	53
67	4	10	....	....	....	....	1	....	15	15	15	15	7	....	15	15	15	15
68	2	4	....	....	6	....	6	....	18	18	18	18	10	....	18	18	18	18
69	11	50	4	....	3	8	2	....	41	78	78	78	52	37	41	41	41	78
70	....	17	....	....	....	....	....	....	13	17	17	13	13	4	13	13	13	17
71	2	11	1	....	1	1	....	....	16	16	16	16	9	....	16	16	16	16
72	2	3	2	....	....	....	1	....	8	8	8	8	2	....	8	8	8	8
73	4	42	6	....	2	1	3	1	50	58	58	59	30	9	50	50	50	59
74	....	1	1	....	3	....	....	....	5	5	5	4	1	....	5	5	5	5
75	4	25	1	1	....	1	2	....	20	34	34	34	34	14	20	20	20	34
76	10	20	....	....	....	....	6	1	37	37	37	24	22	9	28	28	28	37
77	2	17	2	....	4	....	14	....	29	39	39	39	39	10	29	29	29	39
78	2	23	3	....	3	1	1	2	24	35	35	35	19	11	24	24	24	35
79	7	47	6	....	5	2	....	2	57	69	69	69	38	12	57	57	57	69
80	12	43	3	1	6	5	5	1	53	76	76	24	52	23	53	53	53	76
81	4	32	....	....	4	1	....	1	30	42	42	42	27	12	30	30	30	42
82	1	16	1	....	....	....	2	....	20	20	20	20	5	....	20	20	20	20
83	....	17	....	....	2	....	....	....	16	19	19	19	12	3	16	16	16	19
84	7	12	1	1	5	5	3	....	26	34	34	26	24	8	26	26	26	34
85	7	8	5	....	12	1	8	....	35	41	41	41	16	6	35	35	35	41
86	4	20	1	....	2	....	1	....	18	28	28	28	20	10	18	18	18	28
87	3	25	1	....	3	....	2	1	21	35	35	27	22	14	21	21	21	35
88	7	39	3	....	3	2	....	3	45	57	57	34	35	12	45	45	45	55
89	1	....	....	....	10	....	....	....	11	11	11	11	....	....	11	11	11	11
90	2	23	2	....	2	2	....	....	22	31	31	20	20	9	22	22	22	31
91	5	12	....	....	7	2	8	....	27	34	34	20	21	7	27	27	27	34
92	8	25	1	....	5	3	4	....	27	46	46	46	33	19	27	27	27	46
93	5	49	4	....	5	2	4	....	53	69	69	69	35	16	53	53	53	69
94	2	32	4	....	5	....	1	....	33	44	44	44	28	11	33	33	33	44
95	4	22	2	....	12	11	4	....	45	55	55	55	29	10	45	45	45	55
96	6	15	1	....	4	1	1	....	18	28	28	28	20	10	18	18	19	28
97	6	5	....	....	....	....	11	2	19	24	24	24	13	5	19	19	19	24
98	15	8	2	....	20	10	2	2	49	59	59	59	59	10	49	49	49	59
99	4	8	1	....	3	4	5	....	25	25	25	25	9	....	25	25	25	25
100	....	14	2	....	....	1	1	....	13	18	18	18	10	5	13	13	13	18
101	....	14	3	....	4	1	....	....	22	22	22	22	13	....	22	22	22	13
102	8	18	1	....	1	5	1	....	22	34	34	34	26	12	22	22	22	34
103	18	44	5	....	3	5	2	1	49	78	78	78	48	29	49	49	49	78

CONTINUATION

III. TABLE J—ATTENDANCE, PUPILS IN THE SCHOOLS

Continuation Schools—Con.	Number of Pupils in the Various Subjects—Continued.						
	Geometry	French	German	Latin	Zoology	Botany	Chemistry
51 Frankford	30	22	.....	21	21	21	30
52 Gore Bay	31	40	.....	42	47	47	57
53 Grand Valley	53	51	.....	52	39	39	53
54 Hanover	32	50	8	61	52	52	32
55 Harrow	13	28	.....	27	23	23	13
56 Havelock	22	16	.....	21	19	19	18
57 Highgate	29	40	.....	43	38	38	29
58 Hnntsville	32	49	.....	47	45	45	32
59 Jarvis	10	20	.....	20	22	22	10
60 Jockvale	3	.....	.....	6	9	9	3
61 Kars	10	20	.....	20	15	15	20
62 Keewatin	4	9	.....	10	11	11	4
63 Keumore	31	43	.....	47	32	32	31
64 Kinburn	17	30	.....	30	25	25	17
65 Lakefield	35	53	.....	53	41	41	35
66 Lanark	34	43	.....	51	28	28	34
67 Lansdowne	7	15	.....	15	15	15	7
68 Little Current	10	.....	.....	.....	18	18	10
69 Lucknow	52	57	.....	64	41	41	52
70 Malakoff	17	14	.....	15	13	13	13
71 Manitowaning	9	.....	.....	.....	16	16	9
72 Manotick	2	8	.....	8	8	8	2
73 Maxville	30	29	.....	28	50	50	30
74 Massey	1	5	.....	5	5	5	1
75 Melbourne	21	28	.....	31	20	20	21
76 Merlin	37	35	.....	32	28	28	22
77 Merrickville	24	24	.....	24	29	29	24
78 Metcalfe	19	24	.....	26	24	24	19
79 Millbrook	38	67	.....	66	57	57	38
80 Milton	52	53	.....	57	53	53	52
81 Mount Albert	27	39	.....	40	30	30	27
82 Monnt Brydges	5	20	.....	20	20	20	20
83 Navan	12	19	.....	19	16	16	12
84 New Hamburg	24	.....	24	33	26	26	24
85 New Liskeard	16	41	.....	41	35	35	16
86 North Augusta	20	22	.....	22	18	18	28
87 North Gower	22	31	.....	32	21	21	22
88 Norwich	55	33	.....	32	44	44	35
89 New Toronto	.....	11	.....	11	11	11	.....
90 Odessa	20	25	.....	25	22	22	31
91 Oil Springs	21	23	.....	18	27	27	21
92 Orono	33	42	.....	46	27	27	33
93 Paisley	35	58	.....	69	53	53	35
94 Pakenham	28	43	.....	44	33	33	28
95 Palmerston	29	45	.....	48	45	45	29
96 Plattsville	20	21	.....	28	18	18	20
97 Port Burwell	13	21	.....	24	19	19	13
98 Port Colborne	27	50	.....	50	49	49	27
99 Powassan	9	23	.....	23	25	25	9
100 Princeton	10	4	.....	5	13	13	5
101 Richmond	13	7	.....	10	22	22	13
102 Ridgeway	20	27	.....	26	22	22	20
103 Ripley	48	65	.....	69	49	49	48

SCHOOLS—Continued

AND IN THE VARIOUS SUBJECTS, ETC.—Continued

	Number of Pupils in the Various Subjects—Continued							Special Courses	
	Physics	Writing	Bookkeeping	Stenography	Typewriting	Art	Physical Culture	Commercial	Agriculture
51	37	21	.....	.....	.....	21	37	.....	.....
52	57	47	.....	.....	.....	47	57	.....	.....
53	53	39	.....	.....	.....	39	53	.....	.....
54	61	52	.....	.....	.....	52	61	.....	.....
55	30	23	.....	.....	.....	23	30	.....	.....
56	33	20	.....	.....	.....	22	33	.....	.....
57	50	21	.....	.....	.....	50	50	.....	.....
58	60	45	28	.....	.....	45	60	.....	.....
59	22	22	.....	.....	.....	22	22	.....	.....
60	9	9	.....	.....	.....	9	9	.....	.....
61	20	15	.....	.....	.....	16	20	.....	.....
62	13	9	.....	.....	.....	11	13	.....	.....
63	48	32	.....	.....	.....	32	48	.....	.....
64	35	25	.....	.....	.....	25	35	.....	.....
65	53	41	.....	.....	.....	41	53	.....	.....
66	53	28	.....	.....	.....	28	53	.....	.....
67	15	15	.....	.....	.....	15	15	.....	.....
68	18	18	.....	.....	.....	18	18	.....	.....
69	78	41	.....	.....	.....	41	78	.....	.....
70	17	13	.....	.....	.....	14	17	.....	.....
71	16	16	.....	.....	.....	16	16	.....	.....
72	8	8	.....	.....	.....	8	8	.....	.....
73	59	50	.....	.....	.....	50	59	.....	.....
74	5	5	.....	.....	.....	5	5	.....	.....
75	34	20	.....	.....	.....	20	33	.....	.....
76	37	28	.....	.....	.....	28	35	.....	.....
77	39	29	.....	.....	.....	29	39	.....	.....
78	35	24	.....	.....	.....	24	35	.....	.....
79	69	57	.....	.....	.....	57	69	.....	.....
80	76	53	.....	.....	.....	53	76	.....	.....
81	42	30	.....	.....	.....	30	42	.....	.....
82	20	20	.....	.....	.....	20	20	.....	.....
83	12	16	.....	.....	.....	16	.....	.....	.....
84	34	26	.....	.....	.....	26	34	.....	.....
85	41	35	.....	.....	.....	35	41	.....	35
86	28	18	.....	.....	.....	18	28	.....	.....
87	35	21	.....	.....	.....	21	35	.....	.....
88	35	44	.....	.....	.....	44	57	.....	.....
89	11	11	.....	.....	.....	11	11	.....	.....
90	31	22	.....	.....	.....	22	31	.....	.....
91	34	27	.....	.....	.....	27	34	.....	.....
92	33	27	.....	.....	.....	28	46	.....	.....
93	69	53	.....	.....	.....	53	69	.....	.....
94	44	33	.....	.....	.....	33	44	.....	.....
95	55	45	.....	.....	.....	45	55	.....	.....
96	28	18	.....	.....	.....	18	28	.....	.....
97	24	19	.....	.....	.....	19	24	.....	.....
98	59	32	.....	.....	.....	49	59	.....	.....
99	25	25	.....	.....	.....	25	25	.....	.....
100	5	13	.....	.....	.....	13	18	.....	.....
101	22	22	.....	.....	.....	22	22	.....	.....
102	34	22	.....	.....	.....	.....	34	.....	22
103	78	78	.....	.....	.....	40	78	.....	.....

CONTINUATION

III. TABLE J—ATTENDANCE, PUPILS IN THE SCHOOLS

Continuation Schools—Continued	Pupils					Number of Pupils in—		Number of Pupils from—		
	Total number of pupils on the roll for the year	Number of new pupils admitted during the year	Boys on the roll for the year	Girls on the roll for the year	Average Daily Attendance	Lower School	Middle School	Municipalities forming C. S. District or from School Section	Other Sections	No. of other Sections thus represented
104 Rodney	55	16	24	31	40	40	15	30	25	6
105 Russell	29	16	7	22	23	22	7	23	6	3
106 St. George	37	13	14	23	27	27	10	24	13	4
107 Schomberg	27	15	13	14	18	27	.....	27	.....	.....
108 Southampton	42	20	25	17	26	29	13	36	6	6
109 South Mountain	51	51	26	25	46	37	14	19	32	18
110 South Porcupine	9	6	2	7	4	9	.....	8	1	1
111 Spencerville	27	10	11	16	23	18	9	13	14	6
112 Springfield	18	6	5	13	15	14	4	13	5	3
113 Stayner	57	22	21	36	40	44	13	28	29	11
114 Stella	23	7	9	14	16	17	6	8	15	6
115 Stouffville	41	15	17	24	23	22	19	25	16	8
116 Sturgeon Falls	11	8	4	7	8	11	.....	10	1	1
117 Sutton	43	22	22	21	30	36	7	25	18	9
118 Tamworth	42	12	17	25	28	30	12	19	23	9
119 Tara	35	10	11	24	28	23	12	35	.....	.....
120 Tavistock	46	13	19	27	35	30	16	33	13	4
121 Teeswater	39	13	12	27	32	28	11	18	21	11
122 Thamesville	51	19	12	39	41	40	11	32	19	8
123 Thessalon	45	15	9	36	21	37	8	25	20	7
124 Thornbury	54	20	22	32	40	39	15	18	36	14
125 Thorndale	42	23	13	29	26	31	11	42	.....	.....
126 Tilbury	27	21	8	19	19	25	2	18	9	7
127 Tottenham	39	16	13	26	26	30	9	9	30	8
128 Warkworth	45	17	19	26	35	37	8	25	20	8
129 Webbwood	14	5	3	11	8	14	.....	14	.....	.....
130 West Lorne	38	13	17	21	28	31	7	36	2	1
131 Westmeath	30	11	12	18	18	13	17	12	18	3
132 Westport	37	12	19	18	23	29	8	26	11	4
133 Westport (R.C.S.S.)	37	14	13	24	27	27	10	31	6	6
134 Westboro	26	26	12	14	22	26	.....	23	3	3
135 Winona	30	19	8	22	19	30	.....	17	13	5
136 Wolfe Island	14	9	9	5	12	14	.....	14	.....	.....
137 Wroxeter	38	11	20	18	32	25	13	14	24	10
Totals, 1917-1918	5,104	2,151	1,989	3,115	3,734	3,858	1,246	2,949	2,155	900
Totals 1916-1917	5,082	.....	1,979	3,103	3,729	3,977	1,105	2,906	2,176	902
Increases	22	.....	10	12	5	.....	141	43	.....	.....
Decreases	.....	.....	.....	.....	.....	119	.....	.....	21	2
Percentages	.....	42.14	38.96	61.03	73.15	75.58	24.41	57.77	42.22	.....

SCHOOLS—Continued

AND IN THE VARIOUS SUBJECTS, ETC.—Continued

Number of Pupils from Families whose Head is occupied as below—								Number of Pupils in the Various Subjects					
Commerce	Agriculture	Law, Medicine or the Church	Teaching	The Trades	Labouring occupations	Other occupations	Without occupation	English Grammar	English Composition and Rhetoric	English Literature	Canadian History	British History	Ancient History
104 14	22	.....	.....	3	12	4	.....	40	53	53	53	37	13
105 2	16	1	.....	2	3	5	.....	22	29	29	29	29	7
106 5	22	1	.....	4	5	.....	.....	27	37	37	37	24	10
107 ..	15	2	.....	1	5	2	2	27	27	27	27	10	.....
108 10	5	1	.....	15	5	5	1	29	42	42	42	23	13
109 4	45	.....	.....	1	.....	1	.....	37	51	51	51	36	14
110 2	1	.....	.....	2	2	2	.....	9	9	9	9	4	.....
111 5	15	3	.....	4	.....	.....	.....	18	27	27	27	27	13
112 4	9	.....	.....	1	3	1	.....	14	18	18	18	8	4
113 11	37	1	1	1	1	5	.....	41	54	54	54	31	13
114 6	12	.....	.....	4	.....	1	.....	17	23	23	23	16	6
115 ..	22	7	.....	4	.....	5	3	22	41	41	41	27	19
116 3	5	.....	.....	3	.....	.....	.....	11	11	11	8	3	.....
117 8	20	6	1	2	1	2	3	36	43	43	43	22	7
118 7	26	2	1	4	1	1	.....	30	42	42	42	30	12
119 2	16	5	.....	6	5	1	.....	23	34	34	34	23	11
120 ..	19	.....	.....	9	3	15	.....	30	46	46	46	46	16
121 3	25	4	.....	3	2	2	.....	28	39	39	39	25	11
122 10	21	1	.....	3	1	14	1	40	51	51	51	27	11
123 10	17	.....	1	6	4	4	3	37	45	45	45	29	8
124 3	29	9	.....	7	6	.....	.....	39	54	54	54	34	15
125 1	33	3	.....	3	.....	2	.....	31	42	42	42	42	11
126 1	12	1	.....	.....	3	10	.....	25	27	27	27	27	2
127 4	26	3	.....	2	2	2	.....	30	39	39	39	25	9
128 5	28	.....	.....	4	4	4	.....	37	45	45	45	23	8
129 ..	3	.....	.....	.....	.....	11	.....	14	14	14	14	6	.....
130 16	18	2	.....	2	.....	.....	.....	31	38	38	12	19	7
131 5	23	.....	.....	2	.....	.....	.....	30	30	30	30	17	.....
132 6	25	1	.....	1	.....	4	.....	29	37	37	29	23	8
133 7	21	.....	.....	4	2	3	.....	37	37	37	37	37	8
134 22	2	.....	.....	2	.....	.....	.....	26	26	26	21	5	.....
135 2	25	.....	1	.....	.....	2	.....	30	30	30	30	8	.....
136 ..	10	.....	.....	4	.....	.....	.....	14	14	14	8	6	.....
137 2	28	.....	.....	5	2	1	.....	25	38	38	38	27	13
642	2,693	233	22	602	359	457	96	3,877	5,057	5,079	4,726	3,421	1,220
599	2,675	223	26	609	391	464	95	3,979	5,039	5,030	4,639	3,562	1,107
43	18	10	.....	.....	.....	.....	1	.....	18	49	87	.....	113
.....	.....	.....	4	7	32	7	.....	102	.....	.....	.....	141	.....
12.57	52.76	4.56	.43	11.79	7.03	8.95	1.88	75.96	99.07	99.51	92.59	67.02	23.90

CONTINUATION

II. TABLE J—ATTENDANCE, PUPILS IN THE SCHOOLS

Continuation Schools—Con.	Number of Pupils in the Various Subjects—Concluded								
	Geography	Reading	Arithmetic and Mensuration	Algebra	Geometry	French	German	Latin	Zoology
104 Rodney	40	40	40	53	37	37	.....	37	40
105 Russell	22	22	22	29	13	29	.....	22	22
106 St. George	27	27	27	37	24	34	.....	33	27
107 Schomberg	27	27	27	27	10	14	.....	18	23
108 Southampton	29	29	29	42	23	42	.....	42	29
109 South Mountain	37	37	37	51	36	48	.....	48	37
110 South Porcupine	9	9	9	4	4	9	.....	9	9
111 Spencerville	18	18	18	27	13	25	.....	26	18
112 Springfield	14	14	15	18	8	11	.....	17	14
113 Stayner	41	41	42	54	31	32	.....	35	41
114 Stella	17	17	17	23	16	19	.....	21	17
115 Stouffville	22	22	22	41	27	23	.....	36	22
116 Sturgeon Falls	11	11	11	11	3	5	.....	7	11
117 Sutton	36	36	36	43	22	35	.....	34	36
118 Tamworth	30	30	31	42	30	25	.....	37	30
119 Tara	23	23	24	34	23	35	.....	31	23
120 Tavistock	30	30	30	46	31	.....	41	43	30
121 Teeswater	28	28	28	39	25	31	.....	39	28
122 Thamesville	40	40	40	51	27	31	.....	43	40
123 Thessalon	37	37	37	45	29	29	.....	33	37
124 Thornbury	54	54	39	54	34	44	.....	52	39
125 Thorndale	31	31	31	42	19	32	.....	33	31
126 Tilbury	25	25	25	27	6	27	.....	22	.....
127 Tottenham	30	30	30	39	25	37	.....	37	30
128 Warkworth	37	37	37	45	23	44	.....	44	37
129 Webbwood	14	14	14	14	14	8	.....	6	14
130 West Lorne	31	31	31	38	26	21	.....	27	31
131 Westmeath	30	30	30	30	17	30	.....	30	30
132 Westport	29	29	29	37	23	34	.....	34	29
133 Westport (R.C.S.S.)	29	37	29	37	23	36	.....	36	2
134 Westboro'	26	26	26	26	26	25	.....	26	26
135 Winona	30	30	30	30	8	23	.....	23	30
136 Wolfe Island	14	14	14	14	6	14	.....	14	14
137 Wroxeter	25	25	25	38	27	21	.....	25	25
Totals, 1917–1918	3,906	3,865	3,877	5,036	3,021	4,025	73	4,277	3,721
Total, 1916–1917	3,956	3,958	4,001	5,016	3,158	3,627	81	3,958	3,753
Increases	.....	.....	.....	20	.....	398	.....	319	.....
Decreases	50	93	124	.....	137	.....	8	.....	32
Percentages	76.52	75.72	75.97	98.66	59.18	78.85	1.43	83.79	72.90

SCHOOLS—Concluded

AND IN THE VARIOUS SUBJECTS, ETC.—Concluded

	Number of Pupils in the Various Subjects—Concluded									Special Courses	
	Botany	Chemistry	Physics	Writing	Bookkeeping	Stenography	Typewriting	Art	Physical Culture	Commercial	Agriculture
104	40	37	53	40	.....	.....	.....	40	55	.....	.....
105	22	13	29	22	.....	.....	.....	22	29	.....	.....
106	27	24	37	27	.....	.....	.....	27	37	.....	.....
107	23	10	27	27	.....	.....	.....	24	27	.....	.....
108	29	23	42	29	.....	.....	.....	29	42	.....	.....
109	37	36	51	37	.....	.....	.....	37	57	.....	.....
110	9	4	9	9	.....	.....	.....	9	9	.....	.....
111	18	13	27	18	.....	.....	.....	18	27	.....	.....
112	14	8	8	14	.....	.....	.....	14	18	.....	.....
113	41	13	54	41	.....	.....	.....	41	55	.....	.....
114	17	16	23	17	.....	.....	.....	17	23	.....	.....
115	22	27	27	22	.....	.....	.....	22	41	.....	.....
116	11	3	11	11	.....	.....	.....	11	11	.....	.....
117	36	22	22	36	.....	.....	.....	36	43	.....	.....
118	30	30	42	31	.....	.....	.....	30	41	.....	.....
119	23	23	34	23	.....	..	.....	24	34	.....	.....
120	30	31	46	30	.....	.....	.....	30	46	.....	.....
121	28	11	25	28	.....	.....	.....	28	39	.....	.....
122	40	27	51	40	.....	.....	.....	40	51	.....	.....
123	37	29	45	37	.....	.....	.....	37	45	.....	.....
124	39	34	54	34	.....	.....	.....	34	54	.....	.....
125	31	19	42	31	.....	.....	.....	31	42	.....	.....
126	....	2	2	25	.....	.....	.....	21	27	.....	.....
127	30	39	39	30	30	.....	.....	30	39	.....	.....
128	37	23	45	37	.....	.....	.....	37	45	.....	.....
129	14	14	14	14	.....	.....	.....	14	14	.....	.....
130	31	26	7	31	.....	.....	.....	31	38	.....	.....
131	30	30	30	30	.....	.....	.....	30	30	.....	.....
132	29	8	37	29	.....	.....	.....	29	37	.....	.....
133	27	18	37	37	.....	.....	.....	27	37	.....	.....
134	26	26	26	26	21	4	4	26	26	.....	.....
135	30	8	30	30	.....	.....	.....	30	30	.....	.....
136	14	14	14	14	.....	.....	.....	14	14	.....	.....
137	25	27	38	25	.....	.....	.....	27	38	.....	.....
	3,796	2,935	4,778	3,814	156	27	54	3,817	5,062	23	135
	3,892	3,017	4,866	3,788	273	16	16	3,995	4,992	16	166
	.....	.....	.....	26	.....	11	38	.....	70	7	.....
	96	82	88	.....	117	.....	.....	178	.....	.....	31
	74.37	57.50	93.61	74.72	3.05	.52	1.05	74.78	99.17	.45	2.64

COLLEGIATE INSTITUTES

1. TABLE K—FINANCIAL

Collegiate Institutes	Legislative Grants	Municipal Grants (county)	Municipal Grants (local)	Re-
	$ c.	$ c.	$ c.	
1 Barrie	1,218 41	3,983 38	7,071 89	
2 Brantford	3,452 64	6,423 98	23,730 00	
3 Brockville	2,703 62	4,608 36	13,000 00	
4 Chatham	3,226 48	3,946 79	20,917 00	
5 Clinton	1,018 73	5,347 71	2,000 00	
6 Cobourg	1,338 62	4,365 81	8,300 00	
7 Collingwood	1,705 12	3,324 13	11,609 26	
8 Fort William	2,705 32	.....	21,827 04	
9 Galt	2,385 81	10,408 68	11,900 00	
10 Goderich	1,934 06	.....	6,500 00	
11 Guelph	2,640 53	.....	18,108 19	
12 Hamilton	2,350 03	.....	51,558 59	
13 Ingersoll	1,489 05	3,444 12	6,986 79	
14 Kingston	1,213 52	.....	22,200 00	
15 Kitchener-Waterloo	2,695 80	4,314 17	18,994 80	
16 Lindsay	1,218 39	7,244 49	8,363 39	
17 London	2,780 65	.....	58,187 94	
18 Morrisburg	839 76	3,965 39	3,305 51	
19 Napanee	1,097 04	4,747 71	5,338 00	
20 Niagara Falls	2,017 29	2,886 45	17,500 00	
21 North Bay	2,300 28	.....	18,144 00	
22 Orillia	1,305 25	2,438 22	9,500 00	
23 Ottawa	1,329 60	.....	96,286 87	
24 Owen Sound	2,485 63	6,093 91	14,280 00	
25 Perth	1,059 05	4,216 47	4,026 59	
26 Peterborough	1,773 62	.....	24,600 00	
27 Picton	1,347 39	6,706 40	5,500 00	
28 Port Arthur	3,307 51	.....	15,000 00	
29 Renfrew	1,212 50	9,251 38	8,000 00	
30 St. Catharines	1,160 76	4,701 54	15,197 60	
31 St. Mary's	1,054 28	2,528 07	6,500 00	
32 St. Thomas	1,716 41	5,234 62	22,719 04	
33 Sarnia	1,131 10	2,582 25	15,660 80	
34 Seaforth	1,001 75	4,174 39	3,006 91	
35 Smith's Falls	2,019 69	888 51	13,251 84	
36 Stratford	2,795 79	3,653 66	23,348 31	
37 Strathroy	929 12	3,529 07	4,400 00	
38 Toronto, Harbord	1,416 25	.....	127,659 89	
39 Toronto, Humberside	1,217 50	....	40,347 02	
40 Toronto, Jarvis	1,481 11	.....	39,969 22	
41 Toronto, Malvern Avenue	1,216 00	.....	21,377 16	
42 Toronto, Oakwood	2,688 36	.....	41,312 90	
43 Toronto, Parkdale	1,125 50	.....	38,574 05	
44 Toronto, Riverdale	2,961 48	.....	37,471 87	
45 Vankleek Hill	1,048 48	5,431 55	2,750 00	
46 Windsor	1,169 00	7,000 87	29,865 99	
47 Woodstock	2,734 29	6,167 73	11,350 00	
Totals	85,018 57	143,609 81	1,027,498 26	
High Schools				
1 Alexandria	741 38	741 38	5,680 65	
2 Alliston	553 12	1,465 58	2,000 00	
3 Almonte	601 03	1,000 00	3,744 01	
4 Amherstburg	517 89	1,032 98	2,400 00	
5 Arnprior	1,076 03	3,403 86	4,883 65	
6 Arthur	646 39	1,841 33	2,094 50	
7 Athens	742 32	3,999 24	2,000 00	

AND HIGH SCHOOLS

STATEMENT

ceipts		Expenditure		
School Fees	Balances and other sources	Total Receipts	Teachers' Salaries	Buildings, Sites and all permanent improvements	Repairs to school accommodations
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
1 2,199 00	4,756 93	19,229 61	10,729 54	2,922 05	40 43
2 3,782 30	266 24	37,655 16	26,388 63	.....	1,797 93
3 818 00	1,074 15	22,204 13	13,720 00	.....	150 63
4 1,985 94	2,778 52	32,854 73	18,091 50	.....	1,554 43
5 1,229 50	314 51	9,910 45	7,853 75	71 21	43 77
6.....	5,107 20	19,111 63	11,280 39	171 15	339 53
7 534 00	449 04	17,621 55	12,040 00	511 14	86 60
8.....	229 98	24,762 34	17,683 35	2,163 88	74 12
9 3,267 50	4,759 13	32,721 12	20,133 28	610 00	232 62
10 1,455 10	2,257 24	12,146 40	9,433 15	.....	236 32
11 3,641 80	345 82	24,736 34	17,200 00	72 77	303 33
12 8,417 25	710 58	63,036 45	50,891 00	.....	550 50
13 705 75	1,866 47	14,492 18	7,795 05	.....	641 54
14 3,689 75	3,241 17	30,344 44	24,580 00	.....	640 06
15 2,907 70	3,567 87	32,480 34	18,403 36	2,284 43	307 51
16 2,803 50	2,091 97	21,721 74	17,283 50	.....	410 04
17 5,258 00	11,272 39	77,498 98	48,780 00	.....	717 27
18.....	2,856 37	10,967 03	7,400 00	214 00	170 31
19.....	5,773 24	16,955 99	9,286 15	299 97	47 57
20.....	931 90	23,335 64	15,530 00	.....	234 65
21.....	296 93	20,741 21	11,057 20	252 79	312 29
22 2,593 50	1,469 93	17,306 90	12,390 00	.....	228 17
23 16,092 50	17,773 20	131,482 17	71,724 10	12,823 81	5,502 63
24 1,953 25	1,654 24	26,467 03	19,170 50	796 32	570 35
25 814 23	5,453 86	15,570 00	8,540 00	730 80	26 04
26 2,577 94	4,417 46	33,369 02	23,281 50	1,865 90	1,390 89
27.....	6,753 53	20,307 32	9,502 20	55 25	124 25
28.....	2,589 52	20,897 03	13,461 75	220 78	607 98
29 10 00	1,926 31	20,400 19	13,719 11	.....	268 37
30 1,688 50	1,773 68	24,522 08	18,802 23	17 30	198 46
31 1,573 00	243 71	11,899 06	8,900 00	.....	43 23
32 753 00	958 15	31,381 22	25,866 34	91 15	428 04
33.....	3,502 37	22,876 52	14,126 99	954 49	.....
34 1,482 80	3,995 64	13,661 49	7,534 40	.....	744 81
35 414 00	2,229 63	18,803 67	13,140 00	1,286 60	177 80
36 4,079 71	951 72	34,829 19	23,800 00	.....	456 90
37 1,318 00	735 57	10,911 76	7,842 75	.....	.....
38 5,218 00	132,878 72	267,172 86	40,330 50	739 77	3,868 88
39 4,340 00	43 30	45,947 82	34,275 00	87 58	2,105 22
40 3,996 35	136,589 95	182,036 63	34,503 11	84 30	1,639 48
41 2,714 00	36 32	25,343 48	17,208 50	117 66	1,607 44
42 4,746 00	106 84	48,854 10	37,672 25	801 62	718 49
43 3,913 00	58,618 30	102,230 85	33,675 37	22,000 00	2,250 82
44 1,864 00	2,386 25	44,683 60	29,162 50	390 55	1,936 49
45.....	5,249 52	14,479 55	7,500 00	.....	126 64
46.....	140,881 19	178,917 05	29,408 43	130,748 40	5,794 51
47 2,307 95	596 98	23,156 95	15,005 75	420 97	1,017 87
107,144 82	588,763 54	1,952,035 00	946,103 13	183,806 64	40,725 21
1	1,307 24	8,470 65	5,500 00	433 55	19 90
2 490 00	545 13	5,053 83	3,500 00	.....	.....
3 554 00	694 60	6,593 64	4,600 00	650 00	.....
4 64 00	545 32	4,560 19	3,220 00	631 66	.....
5	2,119 91	11,483 45	7,200 00	25 00	193 41
6 724 45	106 81	5,413 48	4,310 00	99 49	.....
7 310 00	3,823 68	10,875 24	5,660 00	50 00	58 20

COLLEGIATE INSTITUTES

I. TABLE K—FINANCIAL

Collegiate Institutes—Continued	Expenditure— Library, scientific apparatus, maps, etc., typewriters, drawing models and equipment for physical culture	Art, manual training, household science and agricultural department equipment	School books, stationery, prizes, fuel, examinations and all other expenses
	$ c.	$ c.	$ c.
1 Barrie	1,474 66		2,143 46
2 Brantford	162 85	118 00	8,117 52
3 Brockville	125 15	128 98	5,755 80
4 Chatham	830 79	34 00	12,344 01
5 Clinton	223 58		1,257 80
6 Cobourg	43 50	647 82	2,930 89
7 Collingwood	91 45	32 32	4,596 21
8 Fort William	23 56		4,817 43
9 Galt	219 47	23 37	7,647 06
10 Goderich	31 80		1,209 41
11 Guelph	339 30		6,721 70
12 Hamilton	250 00	333 35	9,672 44
13 Ingersoll	234 85		5,688 48
14 Kingston	126 40	40 80	4,957 18
15 Kitchener-Waterloo	149 57	21 07	8,457 86
16 Lindsay	57 21		3,057 83
17 London	146 12	92 86	25,862 33
18 Morrisburg			1,792 43
19 Napance			1,672 88
20 Niagara Falls	1,454 92	44 37	5,290 69
21 North Bay	107 94		3,564 83
22 Orillia	170 00		3,098 73
23 Ottawa	279 39	820 70	40,331 54
24 Owen Sound	105 38	395 95	4,949 16
25 Perth			2,130 91
26 Peterborough	200 00		6,489 86
27 Pieton	74 02	57 58	2,736 68
28 Port Arthur	140 05	347 57	5,139 66
29 Renfrew	296 89		2,617 77
30 St. Catharines	38 52		5,195 28
31 St. Mary's			2,155 51
32 St. Thomas	209 72	165 35	3,974 10
33 Sarnia	584 35		1,781 41
34 Seaforth			2,333 14
35 Smith's Falls		18 00	4,084 03
36 Stratford	458 45		8,519 76
37 Strathroy		23 81	2,669 72
38 Toronto, Harbord	103 82	20 00	14,821 77
39 Toronto, Humberside	192 13	50 00	8,380 59
40 Toronto, Jarvis	126 48	123 00	9,885 69
41 Toronto, Malvern Avenue	89 66	98 70	5,825 27
42 Toronto, Oakwood	117 72	483 22	8,130 80
43 Torouto, Parkdale	22 25	1 92	6,915 49
44 Toronto, Riverdale	153 07	1,108 91	6,335 71
45 Vankleek Hill	94 35		1,088 34
46 Windsor	4,593 57	2,064 31	6,140 33
47 Woodstock			5,760 55
Totals	14,142 94	7,295 96	299,049 84
High Schools			
1 Alexandria	105 45		1,660 73
2 Alliston			861 81
3 Almonte	31 30		562 43
4 Amherstburg	14 10		261 31
5 Arnprior	75 17		1,673 99
6 Arthur	36 02	106 61	816 81
7 Athens	109 15	62 78	1,188 66

AND HIGH SCHOOLS—Continued

STATEMENT—Continued

Continued

	Total Expenditure	Charges per year for Tuition
	$ c.	
1	17,310 14	$10.
2	36,584 93	Res. F. I free, others $10. Co. $10; non-res. $30.
3	19,880 56	$5.
4	32,854 73	Res. 1st yr. free, other yrs. $6; non-res. $10.
5	9,450 11	Lower school $6; all others $10.
6	15,413 28	Free.
7	17,357 72	Res. free; non-res. $10.
8	24,762 34	Free.
9	28,865 80	Co. $10; res. and other Cos. $14.
10	10,910 68	F. I $6, II and Com. $8, III and IV $10.
11	24,637 10	Res. free; non-res. $10.
12	61,697 29	Res. 1st yr. $2.50, thereafter $10; non-res. $55.
13	14,359 92	Res. F. I free; all others $7.50. [V $35.
14	30,344 44	Res. I free, II. III. IV $15, V $30; Co. $5; others, I & II $25, III & IV $30,
15	29,623 80	Res. $10; non-res. $15.
16	20,808 58	Res. $7.50 to $10; non-res. $7.50 to $20.
17	75,598 58	Res. F. I free, other F's $10; Co. $10; others $30.
18	9,576 74	Free.
19	11,306 57	Free.
20	22,554 63	Free.
21	15,295 05	Free.
22	15,886 90	$10.
23	131,482 17	Res. I and II $10, III $20, IV and V $25; non-res. I, II, III $45, IV and V $50
24	25,987 66	Res. I free, II $8, III & IV $12; non-res. $10.
25	11,427 75	Res. free; Co. $10; other Co's. $16.
26	33,228 15	Res. I free, II $5, III $8, IV $10; non-res. $25.
27	12,549 98	Free.
28	19,917 79	Free.
29	16,902 14	Res. and Co. free; others $25.
30	24,251 79	$5.
31	11,098 74	Res. F. I $5; all others $10.
32	30,734 70	Res. free; non-res. $10.
33	17,447 24	Free.
34	10,612 35	Lower Sch. $6; M. Sch. $8; U. Sch. $10.
35	18,706 43	Res. free; non-res. $10.
36	33,235 11	Res. F. I free; all others $10.
37	10,536 28	Res. I free; all others $10.
38	59,884 74	
39	45,090 32	
40	46,362 06	
41	24,947 23	Res. I, free, II $9, III, $15, IV, $21, V, $27; non-res.
42	47,924 10	I, $30, II, $24, III, $30, IV. $36, V, $42.
43	64,865 85	
44	39,087 23	
45	8,809 33	Free.
46	178,749 55	Res. and Co. free.
47	22,205 14	Res. 1st yr. free; all others $7.50.
	1,491,123 72	17 free; 30 not free.
1	7,719 63	Province free, others $20.
2	4,361 81	Res. $5; non-res. $10.
3	5,843 73	Res. $2.50; non-res. $12.50.
4	4,127 07	Res. free; non-res. $10.
5	9,167 57	Res. Carleton and Lanark Cos. free; others $25.
6	5,368 93	$10.
7	7,128 79	Res. free; Co. $5; others $10.

COLLEGIATE INSTITUTES

I. TABLE K—FINANCIAL

	High Schools—Continued	Legislative Grants	Municipal Grants (county)	Municipal Grants (local)	Re-
		$ c.	$ c.	$ c.	
8	Aurora	709 69	2,409 30	2,400 00	
9	Avonmore	500 60	669 15	3,750 89	
10	Aylmer	754 02	3,505 75	1,950 00	
11	Beamsville	516 07	1,911 70	2,504 07	
12	Belleville	1,357 88	4,230 12	16,089 30	
13	Bowmanville	674 46	2,350 17	4,000 00	
14	Bradford	588 10	1,738 26	2,000 00	
15	Brampton	896 63	3,365 12	4,000 00	
16	Brighton	515 93	2,009 45	1,600 00	
17	Caledonia	601 08	2,875 28	1,000 00	
18	Campbellford	623 65	2,059 55	6,413 66	
19	Carleton Place	614 90	1,402 97	3,604 34	
20	Cayuga	638 94	2,746 38	1,400 00	
21	Chatsworth	434 71	434 71	2,015 46	
22	Chesley	680 56	1,908 53	2,000 00	
23	Chesterville	532 20	1,575 08	2,176 60	
24	Colborne	500 41	1,460 33	1,560 00	
25	Cornwall	1,770 81	6,527 52	13,000 00	
26	Deseronto	647 83	990 06	2,993 00	
27	Dundalk	437 50	1,068 43	1,500 00	
28	Dundas	1,777 06	2,231 09	5,100 00	
29	Dunnville	888 79	3,575 45	2,000 00	
30	Durham	601 28	601 28	2,839 90	
31	Dutton	581 77	3,717 73	750 00	
32	Elora	511 38	1,206 75	1,800 00	
33	Essex	939 81	3,951 14	2,500 00	
34	Fergus	580 43	1,934 73	2,000 00	
35	Flesherton	563 86	563 86	2,626 75	
36	Forest	631 66	2,115 77	1,950 00	
37	Gananoque	770 62	1,671 29	3,529 06	
38	Georgetown	806 92	2,984 02	2,803 61	
39	Glencoe	530 45	1,775 71	300 00	
40	Gravenhurst	1,144 88	.....	2,825 00	
41	Grimsby	594 61	1,832 04	1,620 22	
42	Hagersville	648 88	2,427 88	1,850 00	
43	Haileybury	1,491 18	.....	.....	
44	Harriston	688 83	2,330 82	2,892 00	
45	Hawkesbury	586 90	2,003 92	1,752 03	
46	Iroquois	632 12	3,458 05	.....	
47	Kemptville	679 63	2,760 67	2,300 00	
48	Kenora	1,423 68	.....	7,350 00	
49	Kincardine	959 91	3,694 73	3,265 60	
50	Leamington	791 31	3,587 41	5,000 00	
51	Listowel	734 17	3,352 29	2,550 00	
52	Lucan	642 21	2,574 46	1,200 00	
53	Madoc	661 57	3,391 20	1,300 00	
54	Markdale	477 36	477 36	1,709 71	
55	Markham	676 63	3,361 49	650 00	
56	Meaford	990 54	2,999 86	3,500 00	
57	Midland	694 55	923 31	4,750 00	
58	Mitchell	683 77	1,789 96	2,800 00	
59	Morewood	472 75	472 75	3,216 45	
60	Mount Forest	611 08	1,452 35	2,300 00	
61	Newburgh	1,001 18	2,671 00	420 00	
62	Newcastle	435 67	635 67	1,199 54	
63	Newmarket	1,516 75	3,540 53	2,500 00	
64	Niagara	536 22	1,000 00	1,025 00	
65	Niagara Falls South	1,110 47	84 85	9,162 13	
66	Norwood	572 24	1,565 31	2,077 20	
67	Oakville	729 63	2,801 91	2,526 02	

AND HIGH SCHOOLS—Continued

STATEMENT—Continued

	ceipts			Expenditure		
	School Fees	Balances and other sources	Total Receipts	Teachers' Salaries	Buildings, Sites and all permanent improvements	Repairs to school accommodations
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
8	846 00	1,121 88	7,486 87	5,240 00	469 50	.....
9	.....	429 64	5,350 28	3,380 00	21 00	235 45
10	803 00	613 94	7,626 71	5,000 00	.....	370 96
11	.....	1,352 05	6,283 89	2,918 62	.....	28 29
12	.....	188 47	21,865 77	17,600 00	.....	406 75
13	250 07	213 00	7,487 70	3,165 00	23 72	261 22
14	406 00	30 11	4,762 47	3,200 00	.....	7 00
15	1,290 04	804 25	10,356 04	8,350 00	317 00	225 81
16	.....	446 58	4,571 96	3,127 72	.....	15 25
17	674 78	2,820 45	7,971 59	4,830 00	664 33	.....
18	.....	1,307 52	10,404 38	5,626 00	2,017 00	275 47
19	365 00	129 16	6,116 37	4,950 00	60 00	269 15
20	.....	3,793 36	8,578 68	4,210 00	.....	21 25
21	279 00	1,428 66	4,592 54	2,230 13	.....	.....
22	1,118 50	1,215 29	6,922 88	5,040 13	825 00	.....
23	.....	61 43	4,345 31	3,095 00	.....	8 40
24	.....	2,890 74	6,411 48	2,500 00	87 75	28 91
25	.....	3,426 48	24,724 81	14,120 00	.....	9 40
26	.....	44 25	4,675 14	3,316 40	.....	35 79
27	525 00	577 84	4,108 77	3,075 00	97 28	.....
28	780 30	239 97	10,128 42	6,700 00	.....	14 09
29	.....	5,147 49	11,611 73	6,465 00	.....	69 48
30	676 02	906 59	5,625 07	3,340 00	48 15	2 00
31	883 00	1,326 86	7,259 36	4,611 77	15 00	217 32
32	312 75	194 71	4,025 59	3,130 00	.....	75 06
33	.....	1,346 10	8,737 05	6,125 00	.....	255 92
34	530 00	2,248 02	7,293 18	4,190 00	23 65	107 03
35	339 00	724 18	4,817 65	2,840 00	.....	61 87
36	.....	1,237 81	5,935 24	3,950 00	.....	264 19
37	147 00	9 70	6,127 67	4,731 29	36 89	62 39
38	1,134 70	82 00	7,811 25	6,175 00	71 40	202 60
39	589 00	683 78	3,878 94	2,750 00	361 36	4 00
40	312 00	24 17	4,306 05	3,050 00	.....	65 75
41	.....	387 88	4,434 75	3,500 00	.....	54 83
42	.....	90 26	5,017 02	3,670 00	75 00	31 84
43	1,444 50	10,389 45	13,325 13	5,400 00	60 00	498 90
44	577 00	101 98	6,590 63	4,960 00	.....	15 33
45	.....	.....	4,342 85	3,230 00	87 50	.....
46	.....	2,541 02	6,631 19	4,620 00	.....	.....
47	403 35	1,296 06	7,439 71	5,819 00	8 50	127 11
48	.....	200 37	8,974 05	5,133 20	450 00	.....
49	1,241 50	1,170 99	10,332 73	6,930 00	.....	76 00
50	.....	3,421 13	12,799 85	6,440 00	.....	554 30
51	1,528 00	1,398 52	9,562 98	6,845 00	1,115 95	155 84
52	.....	1,161 46	5,578 13	4,200 00	.....	145 30
53	.....	1,386 68	6,739 45	4,500 00	240 84	36 73
54	387 00	1,848 39	4,899 82	2,150 00	.....	.....
55	909 00	831 92	6,429 04	4,690 00	14 93	195 00
56	849 00	1,185 94	9,525 34	7,264 56	233 66	.....
57	679 30	1,674 82	8,721 98	5,723 00	72 59	264 20
58	775 50	967 50	7,016 73	4,638 00	1,032 87	21 43
59	.....	2,252 94	6,414 89	2,600 00	.....	17 00
60	1,062 75	390 51	5,816 69	4,255 00	56 50	30 75
61	20 00	2,599 23	6,711 41	3,000 00	.....	86 44
62	.....	.....	2,180 88	1,862 50	.....	28 03
63	1,634 35	2,420 84	11,612 47	7,908 64	899 28	179 42
64	.....	906 31	3,467 53	2,131 50	.....	24 00
65	.....	6,424 90	16,782 35	6,410 00	1,303 72	289 65
66	459 00	.....	4,673 75	3,200 00	.....	56 89
67	629 75	71 00	6,758 31	4,440 00	232 16	66 05

COLLEGIATE INSTITUTES

I. TABLE K—FINANCIAL

High Schools—Continued	Expenditure— Library, scientific apparatus, maps, etc., typewriters, drawing models and equipment for physical culture	Art, manual training, household science and agricultural department equipment	School books, stationery, prizes, fuel, examinations and all other expenses
	$ c.	$ c.	$ c.
8 Aurora	30 18	.....	885 45
9 Avonmore	202 00	.....	812 38
10 Aylmer	.....	.....	1,219 32
11 Beamsville	19 30	15 00	3,182 35
12 Belleville	142 09	104 35	3,496 13
13 Bowmanville	91 36	.....	1,759 62
14 Bradford	.....	.....	1,177 09
15 Brampton	.....	.....	882 07
16 Brighton	154 89	.....	1,253 21
17 Caledonia	231 10	.....	721 26
18 Campbellford	431 54	.....	1,490 99
19 Carleton Place	71 25	.....	742 97
20 Cayuga	208 90	.....	2,966 13
21 Chatsworth	26 79	.....	2,023 47
22 Chesley	.....	.....	565 40
23 Chesterville	66 72	.....	717 16
24 Colborne	.....	.....	907 78
25 Cornwall	.....	49 65	3,218 80
26 Deseronto	51 67	.....	1,271 28
27 Dundalk	21 72	.....	887 64
28 Dundas	5 76	.....	3,205 59
29 Dunnville	188 85	.....	1,344 59
30 Durham	26 35	.....	1,161 31
31 Dutton	190 84	.....	575 63
32 Elora	136 91	.....	518 96
33 Essex	.....	345 04	890 06
34 Fergus	44 30	.....	1,011 95
35 Flesherton	38 08	.....	943 83
36 Forest	.....	.....	929 36
37 Gananoque	64 45	.....	1,232 65
38 Georgetown	78 28	78 29	1,163 28
39 Glencoe	.....	.....	477 81
40 Gravenhurst	35 86	.....	1,044 93
41 Grimsby	.....	.....	865 04
42 Hagersville	81 34	19 71	860 10
43 Haileybury	.....	.....	1,813 28
44 Harriston	.....	.....	831 45
45 Hawkesbury	.....	.....	1,004 26
46 Iroquois	3 75	.....	1,037 86
47 Kemptville	144 50	.....	1,074 79
48 Kenora	280 00	.....	2,999 97
49 Kincardine	135 41	.....	1,056 38
50 Leamington	22 33	.....	1,276 46
51 Listowel	53 10	.....	1,351 33
52 Lucan	57 47	.....	1,146 98
53 Madoc	53 09	.....	859 77
54 Markdale	65 50	5 25	757 23
55 Markham	83 56	.....	690 61
56 Meaford	.....	.....	1,983 71
57 Midland	884 21	.....	730 00
58 Mitchell	.....	10 00	1,285 43
59 Morewood	52 66	.....	971 88
60 Mount Forest	.....	.....	1,130 06
61 Newburgh	7 66	15 70	698 03
62 Newcastle	5 54	.....	284 81
63 Newmarket	400 40	.....	2,178 21
64 Niagara	160 73	.....	311 84
65 Niagara Falls South	212 50	211 94	1,769 35
66 Norwood	101 75	.....	921 98
67 Oakville	176 86	457 66	1,386 18

AND HIGH SCHOOLS—Continued

STATEMENT—Continued

Continued

	Total Expenditure	Charges per year for Tuition
	$ c.	
8	6,625 13	$10.
9	4,650 83	Free.
10	6,590 28	Res. F. I $5; all others $10.
11	6,163 56	Free.
12	21,749 32	Free.
13	5,300 92	Res. F. I free, II $6; others $7.50; non-res. free.
14	4,384 09	Form I free; all others $10.
15	9,774 88	$10.
16	4,551 07	Free.
17	6,446 69	Res. free; non-res. $4.50.
18	9,841 00	Free.
19	6,093 37	Free; non-res. $10.
20	7,406 28	Free.
21	4,280 39	Res. 1st year free; all others $10.
22	6,430 53	F. I $10, II $15, III $20, IV $30.
23	3,887 28	Free.
24	3,524 44	Free.
25	17,397 85	Free.
26	4,675 14	Free.
27	4,081 64	$10.
28	9,925 44	Res. 1st yr. free; all others $10.
29	8,067 92	Free.
30	4,577 81	Res. $7.50; non-res. $10.
31	5,609 96	$10.
32	3,860 93	Res. $5; non-res. $10.
33	7,616 02	Res. and adjacent Cos. free; others $10.
34	5,576 93	Res. free; non-res. $10.
35	3,883 78	Res. I free, II $5, III $7.50; non-res. $10.
36	5,143 55	Free.
37	6,127 67	Res. free; non-res. $5.
38	7,773 85	$10.
39	3,593 17	$10.
40	4,196 54	F. I $5; others $10.
41	4,419 87	Free.
42	4,737 99	Free.
43	7,772 18	Res. free; non-res. $30.
44	5,806 78	Res. 1st year free; all others $10.
45	4,321 76	Free.
46	5,661 61	Free.
47	7,173 90	Res. free; Co. & adjoining Cos. $5; others $25.
48	8,863 17	Free.
49	8,197 79	Res. $8; non-res. $10.
50	8,293 09	Free.
51	9,521 22	Res. 1st year $7; all others $10.
52	5,549 75	$10.
53	5,670 43	Free.
54	2,977 98	$10.
55	5,674 10	$10.
56	9,481 93	Res. I. $5; others $8; non-res. $10.
57	7,674 00	Res. $5; non-res. $10.
58	6,987 73	Res. $6; non-res. $10.
59	3,641 54	Free.
60	5,472 31	F. I free; all others $10.
61	3,807 83	Res. and Co. free; others $10.
62	2,180 88	Free.
63	11,565 95	$10.
64	2,628 07	Free.
65	10,197 16	Free.
66	4,280 62	$6.
67	6,758 31	Res. $5; non-res. 8.

COLLEGIATE INSTITUTES

I. TABLE K—FINANCIAL

High Schools—Continued	Legislative Grants	Municipal Grants (county)	Municipal Grants (local)
	$ c.	$ c.	$ c.
68 Omemee	424 24	584 92	1,238 32
69 Orangeville	863 30	1,889 58	3,950 00
70 Oshawa	1,029 65	2,582 88	9,017 80
71 Paris	657 57	1,902 39	3,950 00
72 Parkhill	626 47	1,885 52	1,500 00
73 Parry Sound	1,837 99	.....	4,500 00
74 Pembroke	1,996 24	2,273 51	10,728 90
75 Penetanguishene	690 35	690 35	3,900 00
76 Petrolia	651 31	2,093 11	2,800 00
77 Plantagenet	501 41	1,213 19	2,091 39
78 Port Dover	457 00	561 85	1,785 79
79 Port Elgin	507 34	1,680 67	1,250 00
80 Port Hope	899 29	3,973 37	8,110 56
81 Port Perry	611 77	2,995 00	2,100 00
82 Port Rowan	427 31	1,079 98	1,341 99
83 Prescott	726 16	835 33	5,145 47
84 Richmond Hill	555 14	2,365 90	800 00
85 Ridgetown	738 91	2,341 26	2,800 00
86 Rockland	579 24	2,146 64	1,210 30
87 Sault Ste. Marie	4,041 22	.....	15,500 00
88 Shelburne	530 12	.....	2,800 00
89 Simcoe	877 39	4,249 99	4,584 22
90 Smithville	515 05	1,813 91	1,500 00
91 Stirling	646 12	2,962 93	1,588 73
92 Streetsville	512 45	2,062 97	650 00
93 Sudbury	7,982 36	.....	11,251 20
94 Sydenham	689 64	5,000 00	.....
95 Thorold	893 18	264 41	3,700 00
96 Tillsonburg	837 50	2,300 47	3,500 00
97 Toronto, Commerce	2,873 76	.....	127,250 96
98 Toronto, North	1,098 21	.....	20,656 92
99 Trenton	600 84	1,560 04	2,500 00
100 Tweed	527 65	.....	38,672 35
101 Uxbridge	583 24	2,507 60	2,896 05
102 Vienna	419 38	823 57	1,004 15
103 Walkerton	718 54	1,776 03	2,900 00
104 Wallaceburg	523 51	1,312 86	6,300 00
105 Wardsville	406 95	784 22	868 27
106 Waterdown	485 77	885 77	3,170 00
107 Waterford	552 93	1,960 00	1,500 00
108 Watford	684 50	3,087 80	2,000 00
109 Welland	1,211 15	.....	7,000 00
110 Weston	728 51	2,531 86	5,355 95
111 Whitby	2,372 73	3,188 96	5,700 00
112 Wiarton	569 71	1,801 58	1,500 00
113 Williamstown	728 26	728 26	4,800 00
114 Winchester	689 18	1,734 97	5,896 48
115 Wingham	742 42	3,767 74	2,753 84
1 Totals, High Schools	99,069 84	220,442 26	554,629 99
2 Totals, Collegiate Institutes	85,018 57	143,609 81	1,027,498 26
3 Grand Totals, 1917	184,088 41	364,052 07	1,582,128 25
4 Grand Totals, 1916	185,245 16	382,542 00	1,845,705 45
5 Increases	.....	.....	.....
6 Decreases	1,156 75	18,489 93	263,577 20
7 Percentages	6.03	11.93	51.84

AND HIGH SCHOOLS—Continued

STATEMENT—Continued

	ceipts			Expenditure			
	School Fees	Balances and other sources	Total Receipts	Teachers' Salaries	Buildings, Sites and all permanent improvements	Repairs to school accommodation
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
68	238 07	242 50	2,728 05	2,090 00	5 00	.....
69	1,217 50	1,237 94	9,158 32	6,010 00	275 00	100 55
70	136 75	804 67	13,571 75	8,580 00	243 68	439 94
71	35 66	990 49	7,536 11	5,070 00	.....	51 37
72	737 00	288 48	5,037 47	4,000 00	.....	99 24
73	49 00	494 12	6,881 11	3,880 00	.....	166 25
74	51 00	.....	15,049 65	10,554 63	1,795 32	208 34
75	.....	600 71	5,881 41	3,900 00	105 67	.....
76	.....	600 00	6,144 42	4,960 00	.....	186 85
77	.....	3,227 56	7,033 55	2,892 00	.....	.....
78	.....	249 00	3,053 64	2,200 00	240 00	.....
79	398 88	1,002 71	4,839 60	3,030 00	.....	.....
80	600 00	113 00	13,696 22	8,218 96	3,500 00	289 52
81	263 25	103 42	6,073 44	4,750 00	98 51	.....
82	.....	.....	2,849 28	1,880 00	96 00	329 60
83	108 00	80 06	6,895 02	5,025 00	.....	40 60
84	656 00	45 75	4,422 79	3,350 00	.....	23 55
85	950 85	486 65	7,317 67	5,830 00	.....	288 75
86	.....	1,401 18	5,337 36	2,933 25	85 68	47 69
87	2,186 00	3,326 77	25,053 99	13,970 00	3,184 68	344 83
88	423 50	21 56	3,775 18	2,875 00	.....	31 99
89	.....	157 22	9,868 82	7,922 00	.....	561 28
90	.....	3,842 57	7,671 53	3,166 64	.....	131 92
91	.....	1,670 79	6,868 57	3,523 37	119 15	54 95
92	328 00	952 39	4,505 81	3,020 00	.....	384 24
93	159 00	6,007 03	25,399 59	13,542 75	403 00	63 25
94	642 00	448 85	6,780 49	4,850 00	.....	165 00
95	.....	575 63	5,433 22	4,123 65	.....	71 08
96	657 00	527 69	7,822 66	5,770 00	.....	.....
97	3,607 00	24,160 93	157,892 65	40,456 15	32,591 00	5,375 47
98	1,610 00	10,580 03	33,945 16	14,133 50	302 94	2,380 93
99	.....	3,103 74	7,764 62	4,660 00	.....	47 25
100	.....	.....	39,200 00	3,100 00	35,000 00	.....
101	743 50	309 94	7,040 33	5,150 00	.....	7 00
102	.....	1,310 32	3,557 42	1,880 00	131 35	50 00
103	806 24	1,268 02	7,468 83	5,069 85	.....	71 04
104	191 00	105 00	8,432 37	4,340 00	1,140 47	.....
105	219 75	142 55	2,421 74	1,940 00	65 51	16 05
106	544 00	246 37	5,331 91	3,500 00	121 18	107 37
107	.....	1,253 10	5,266 03	3,185 80	.....	38 43
108	405 50	3,154 83	9,332 63	4,750 00	.....	99 91
109	170 00	6,643 69	15,024 84	8,178 00	.....	403 31
110	736 50	838 23	10,191 05	6,110 00	160 50	10 70
111	352 25	264 52	11,878 46	6,215 00	.....	199 20
112	462 00	980 45	5,313 74	3,450 00	803 27	68 12
113	.....	793 35	7,049 87	5,442 38	.....	.....
114	.....	215 57	8,536 20	5,265 62	349 91	85 53
115	991 20	1,628 45	9,883 65	6,660 00	7 25	107 18
1	47,680 01	177,827 10	1,099,649 20	607,946 01	93,737 30	19,975 63
2	107,144 82	588,763 54	1,952,035 00	946,103 13	183,806 64	40,725 21
3	154,824 83	766,590 64	3,051,684 20	1,554,049 14	277,543 94	60,700 84
4	160,755 26	468,827 40	3,043,075 27	1,509,226 66	398,790 68	38,078 23
5	.....	297,763 24	8,608 93	44,822 48	.....	22,622 61
6	5,930 43	.....	.....	.....	121,246 74	.....
7	5.07	25.12	.....	64.24	11.47	2.51

COLLEGIATE INSTITUTES

I. TABLE K—FINANCIAL

High Schools—Concluded	Expenditure— Library, scientific apparatus, maps, etc., typewriters, drawing models and equipment for physical culture	Art, manual training, household science and agricultural department equipment	School books, stationery, prizes, fuel, examinations and all other expenses
	$ c.	$ c.	$ c.
68 Omemee	23 64	.....	511 69
69 Orangeville	.....	.....	1,539 84
70 Oshawa	508 34	.....	2,542 47
71 Paris	116 51	.....	1,254 23
72 Parkhill	54 30	.....	577 21
73 Parry Sound	5 25	27 80	2,220 32
74 Pembroke	145 09	.....	2,287 52
75 Penetanguishene	.....	.....	1,426 63
76 Petrolia	.....	.....	3 82
77 Plantagenet	.....	.....	2,631 29
78 Port Dover	100 31	.....	496 83
79 Port Elgin	31 61	.....	1,632 45
80 Port Hope	208 85	109 85	1,028 67
81 Port Perry	.....	.....	819 26
82 Port Rowan	124 66	.....	404 27
83 Prescott	29 23	.....	1,721 81
84 Richmond Hill	123 29	.....	673 31
85 Ridgetown	107 22	.....	1,005 98
86 Rockland	17 23	.....	465 49
87 Sault Ste. Marie	266 27	466 86	4,824 15
88 Shelburne	9 13	.....	739 83
89 Simcoe	.....	.....	1,385 54
90 Smithville	14 00	.....	479 56
91 Stirling	.....	.....	1,208 88
92 Streetsville	48 71	.....	438 88
93 Sudbury	242 17	.....	3,886 53
94 Sydenham	.....	.....	1,464 24
95 Thorold	18 94	.....	1,198 78
96 Tillsonburg	20 25	.....	1,863 44
97 Toronto, Commerce	230 53	92 76	28,908 17
98 Toronto, North	121 94	58 50	15,215 56
99 Trenton	.....	.....	1,389 50
100 Tweed	1,100 00	.....	.....
101 Uxbridge	238 78	81 00	1,512 30
102 Vienna	100 00	.....	115 00
103 Walkerton	46 49	.....	795 80
104 Wallaceburg	369 63	.....	1,071 07
105 Wardsville	41 14	.....	345 79
106 Waterdown	74 61	.....	1,509 00
107 Waterford	53 42	.....	616 57
108 Watford	.....	.....	785 06
109 Welland	120 39	.....	3,699 53
110 Weston	.....	180 71	2,272 87
111 Whitby	91 01	615 91	4,581 92
112 Wiarton	48 55	.....	882 03
113 Williamstown	.....	100 75	714 73
114 Winchester	91 10	124 14	2,231 23
115 Wingham	72 71	124 54	1,503 39
1 Totals, High Schools	10,928 04	3,404 20	191,860 02
2 Totals, Collegiate Institutes	14,142 94	7,295 96	299,049 84
3 Grand Totals, 1917	25,070 98	10,700 16	490,909 86
4 Grand Totals, 1916	27,677 14	5,345 60	509,135 81
5 Increases	.....	5,354 56	.....
6 Decreases	2,606 16	.....	18,225 95
7 Percentages	1.03	.44	20.29

AND HIGH SCHOOLS—Continued
STATEMENT—Concluded

Concluded	Total Expenditure	Charges per year for Tuition
	$ c.	
68	2,630 33	Res. free; non-res. $10.
69	7,925 39	$10.
70	12,314 43	Res. free; non-res. $7.50.
71	6,492 11	Res. Brant. Waterloo & Oxford Cos. free; others $20.
72	4,730 75	Res. Lower School $6, others $7; non-res. $10.
73	6,309 62	Res. free; non-res. $10.
74	14,990 90	Free.
75	5,432 30	Free.
76	5,150 67	Free.
77	5,523 29	Free.
78	3,037 14	Free.
79	4,694 06	$6.50
80	13,355 85	Co. free; res. and others $9.
81	5,667 77	Res. F. I, and Durham Co. free; all others $7.50.
82	2,834 53	Free.
83	6,816 64	Res free: non-res. $5.
84	4,170 15	$10.
85	7,231 95	Res. F. I free, others $6; non-res. $10.
86	3,549 34	Free.
87	23,056 79	$10.
88	3,655 95	Res. 1 free; all others $10.
89	9,868 82	Res. free; non-res. $10.
90	3,792 12	Free.
91	4,906 35	Free.
92	3,891 83	$10.
93	18,137 70	Res. free; non-res. $10.
94	6,479 24	L. and M. Schools $5; U. School $12
95	5,412 45	Free.
96	7,653 69	L. & M. Schools $7.50; U. School $10.
97	107,594 08	Res. 1st & 2nd yrs. free; 3rd & 4th yrs. $15; non-res. 2nd yr. $15; all
98	32,213 37	(See Toronto Collegiate Institutes.) [other yrs. $30.
99	6,096 75	Free.
100	39,200 00	Free.
101	6,989 08	Res. $5, non-res. $7.50.
102	2,276 35	Free.
103	5,983 18	Res. F. I free; all others $10.
104	6,921 17	Res. free; non-res. $10.
105	2,408 49	$7.50.
106	5,312 16	$10.
107	3,894 22	Free.
108	5,634 97	Res. $10; non-res. free.
109	12,401 23	Free.
110	8,734 78	1st yr. free; 2nd yr. $10; other yrs. $10 to $15.
111	11,703 04	Res. $6; Co. $7.50; others $10.
112	5,251 97	$6.
113	6,257 86	Free.
114	8,147 53	Free.
115	8,475 07	L. Sch. $6; M. Sch. $8; U. Sch. $10.
1	927,851 20	60 free; 55 not free.
2	1,491,123 72	17 free; 30 not free.
3	2,418,974 92	77 free; 85 not free.
4	2,488,254 12	76 free; 84 not free.
5	.....	1 free. 1 not free
6	69,279 20	.....
7	.....	47.53 free; 52.46 not free.

Approximate cost per pupil, enrolled attendance, $83.00; average attendance, $106.00.

COLLEGIATE INSTITUTES AND
II. TABLE L—BOARDS OF EDUCATION, APPROVED

Collegiate Institutes	Brick or Stone School House	Number of Acres in Playground	Schools under Board of Education	Approved Schools—Grade I and Grade II	Value of Library	Value of Scientific Apparatus	Value of Charts, Maps and Globes
					$	$	$
1 Barrie	B	.....	1	.....	132	444	36
2 Brantford	B	3	1	.....	859	1,150	419
3 Brockville	S	3	.....	I	1,002	1,279	192
4 Chatham	B	1½	1	.....	1,154	2,546	271
5 Clinton	B	3	.....	II	884	710	135
6 Cobourg	B	1	.....	II	1,835	1,469	219
7 Collingwood	B	1½	1	.....	792	836	165
8 Fort William	B	1 4/60	1	II	1,154	911	194
9 Galt	S	8	.....	.....	1,276	1,680	265
10 Goderich	B	½	.....	.....	1,065	796	103
11 Guelph	S	4½	1	.....	1,089	1,986	282
12 Hamilton	S & B	1½	1	.....	1,905	2,437	407
13 Ingersoll	B	2	1	II	981	935	109
14 Kingston	B	2	1	.....	1,180	1,244	239
15 Kitchener-Waterloo	B	4 3/60	.....	.....	1,867	1,547	266
16 Lindsay	B	.....	1	II	1,818	1,556	87
17 London	B	3	1	.....	1,209	3,263	321
18 Morrisburg	B	12	1	.....	773	1,293	143
19 Napanee	B	3¼	1	.....	1,068	904	125
20 Niagara Falls	B	5 3/60	.....	I	1,097	1,137	114
21 North Bay	B	2	.....	I	631	1,125	164
22 Orillia	B	2	.....	I	818	907	165
23 Ottawa	S	21	.....	II	2,979	4,513	431
24 Owen Sound	B	4½	1	I	1,614	1,568	139
25 Perth	B	4	1	II	1,002	994	140
26 Peterborough	B	1½	1	.....	1,262	1,169	86
27 Picton	B	2¾	.....	I	980	1,150	247
28 Port Arthur	S	3	1	I	1,044	1,784	303
29 Renfrew	B	2½	1	.....	799	606	95
30 St. Catharines	B	4 6/60	.....	.....	1,015	1,551	169
31 St. Mary's	B	2	.....	II	1,047	1,409	120
32 St. Thomas	B	2	1	.....	1,284	2,083	74
33 Sarnia	B	2½	1	.....	1,102	1,453	133
34 Seaforth	B	2½	1	II	876	785	78
35 Smith's Falls	B	4½	1	I	692	1,406	88
36 Stratford	B	10	.....	.....	1,316	1,609	171
37 Strathroy	B	10	.....	II	1,107	1,071	95
38 Toronto, Harbord	B	2½	1	II	2,512	5,723	219
39 Toronto, Humberside	B	6	1	.....	2,326	3,750	153
40 Toronto, Jarvis	B	1¾	1	.....	2,251	4,510	228
41 Toronto, Malvern Avenue	B	3	1	II	1,425	2,580	133
42 Toronto, Oakwood	B & S	5	1	.....	2,267	4,503	250
43 Toronto, Parkdale	B	1½	1	.....	2,178	3,352	160
44 Toronto, Riverdale	B & S	4½	1	.....	1,659	2,530	127
45 Vankleek Hill	B	2	.....	.....	776	942	64
46 Windsor	B	3	1	II	1,728	1,508	228
47 Woodstock	B	1	1	II	1,470	1,723	238
Totals	.....	.....	31	8 I, 14 II	61,300	84,427	8,588
High Schools							
1 Alexandria	B	3	.....	II	634	584	64
2 Alliston	B	4	.....	.....	378	654	54
3 Almonte	S	1½	1	.....	644	472	47
4 Amherstburg	B	2	.....	.....	242	402	82
5 Arnprior	B	1	1	I	674	551	97
6 Arthur	B	3½	.....	.....	487	813	58

HIGH SCHOOLS—Continued
SCHOOLS, EQUIPMENT, DESTINATION OF PUPILS, ETC.

General Equipment

	Art Models	Typewriters	Biological Specimens	Equipment for Physical Culture	Gymnasium (not including equipment)	Museum	Aquarium, Herbarium, etc.	Pictures	Total value of General Equipment
	$	$	$	$	$	$	$	$	$
1	39	350	63	.....	.....	.....	.....	.....	1,064
2	158	1,117	161	446	10,000	160	.....	415	14,885
3	146	658	103	413	2,500	50	25	222	6,590
4	101	1,500	119	288	2,500	.....	.....	177	8,656
5	75	225	98	97	884	.....	.....	160	3,268
6	109	1,050	162	511	3,000	31	.....	350	8,736
7	102	400	76	217	1,200	.....	.....	100	3,888
8	155	1,195	274	332	16,000	.....	.....	40	20,255
9	121	1,100	305	168	.....	662	25	1,025	6,627
10	77	400	107	279	2,500	.....	.....	189	5,516
11	52	960	216	972	2,800	100	75	625	9,157
12	100	125	219	966	8,000	125	.....	774	15,058
13	101	200	100	304	800	.....	15	164	3,709
14	100	720	114	415	7,000	.....	.....	200	11,212
15	173	1,433	201	613	1,000	196	5	412	7,713
16	98	400	268	506	4,000	250	.....	152	9,135
17	142	1,500	172	714	10,500	100	.....	500	18,421
18	101	150	100	279	980	.....	.....	200	4,019
19	101	420	101	389	922	.....	.....	217	4,247
20	103	850	110	355	10,000	.....	.....	150	13,916
21	151	800	102	417	10,000	.....	.....	15	13,405
22	102	450	105	288	1,800	.....	.....	150	4,783
23	238	1,695	470	1,138	10,000	.....	.....	620	22,084
24	125	395	121	275	3,000	100	.....	65	7,402
25	101	200	111	344	7,000	500	.....	127	10,519
26	164	723	182	81	.....	150	50	644	4,511
27	102	740	125	271	5,000	.....	40	779	9,434
28	104	800	59	444	15,000	143	6	233	19,920
29	101	225	101	302	5,000	.....	.....	.....	7,229
30	114	535	190	409	8,000	50	6	437	12,476
31	106	160	194	520	6,000	40	.....	100	9,696
32	155	1,215	155	470	1,532	.....	.....	550	7,518
33	103	500	111	270	1,380	.....	.....	250	5,302
34	100	375	115	157	600	.....	.....	.....	3,086
35	107	610	103	64	7,688	.....	.....	84	10,842
36	170	850	500	282	2,000	500	.....	350	7,748
37	76	150	89	377	3,500	.....	.....	.....	6,465
38	109	.....	1,320	1,110	10,000	.....	180	500	21,673
39	132	90	369	578	10,000	.....	.....	565	17,963
40	149	115	656	426	7,000	692	75	1,464	17,566
41	158	.....	239	581	5,000	.....	.....	.....	10,116
42	125	130	1,211	686	10,000	.....	.....	652	19,824
43	149	25	372	320	10,000	.....	.....	340	16,896
44	100	90	672	575	15,000	.....	50	553	21,356
45	103	260	108	59	3,200	108	.....	51	5,671
46	116	1,803	130	444	40,000	100	.....	200	46,257
47	121	566	94	529	5,000	94	.....	227	10,062
	5,535	28,255	11,073	19,681	287,286	4,151	552	15,028	525,876
1	85	.....	105	26	.....	.....	.....	126	1,624
2	35	.....	54	.....	.....	.....	.....	.....	1,175
3	71	.....	97	22	.....	.....	6	25	1,384
4	33	150	30	13	.....	.....	.....	.....	952
5	75	.....	104	44	.....	.....	.....	182	1,727
6	47	.....	56	.....	.....	.....	.....	39	1,500

II. TABLE L—BOARDS OF EDUCATION, APPROVED COLLEGIATE INSTITUTES AND

Collegiate Institutes	Value of Manual Training Equipment				Value of Household Science Department Equipment			Value of Agricultural Department Equipment	Value of Art Equipment (Middle School)
	Woodwork	Woodturning	Forging	Machine Shop Practice	Cookery, Sanitation and Hygiene	Handwork and Machine Sewing	Laundry Work		
	$	$	$	$	$	$	$	$	$
1 Barrie	.....	.....	.....	.....	.....	.....	.....	.....	.....
2 Brantford	754	285	502	467	675	98	.....	.....	158
3 Brockville	.....	.....	.....	.....	.....	.....	.....	89	120
4 Chatham	768	.....	.....	.....	1,392	.....	.....	.....	.....
5 Clinton	.....	.....	.....	.....	.....	.....	.....	244	32
6 Cobourg	.....	.....	.....	.....	1,011	203	.....	81	.....
7 Collingwood	1,014	.....	.....	.....	843	.....	.....	.....	.....
8 Fort William	1,422	.....	.....	.....	1,376	105	.....	.....	.....
9 Galt	1,099	299	.....	.....	1,310	103	22	.....	11
10 Goderich	.....	.....	.....	.....	.....	.....	.....	.....	.....
11 Guelph	.....	.....	.....	.....	.....	.....	.....	.....	.....
12 Hamilton	466	.....	.....	.....	.....	.....	.....	.....	25
13 Ingersoll	391	179	83	399	504	65	.....	.....	.....
14 Kingston	.....	.....	.....	.....	.....	.....	.....	.....	.....
15 Kitchener-Waterloo	771	257	700	829	1,647	.....	.....	.....	125
16 Lindsay	.....	.....	.....	.....	.....	.....	.....	228	98
17 London	913	.....	.....	.....	1,004	154	.....	73	75
18 Morrisburg	.....	.....	.....	.....	.....	.....	.....	.....	.....
19 Napanee	.....	.....	.....	.....	.....	.....	.....	.....	.....
20 Niagara Falls	.....	.....	.....	.....	746	296	.....	.....	.....
21 North Bay	.....	.....	.....	.....	.....	.....	.....	.....	.....
22 Orillia	.....	.....	.....	.....	.....	.....	.....	.....	.....
23 Ottawa	.....	.....	.....	.....	.....	.....	.....	.....	.....
24 Owen Sound	505	350	.....	.....	731	12	.....	.....	10
25 Perth	.....	.....	.....	.....	.....	.....	.....	.....	.....
26 Peterborough	.....	.....	.....	.....	.....	.....	.....	.....	.....
27 Picton	.....	.....	.....	.....	.....	.....	.....	212	.....
28 Port Arthur	571	240	.....	.....	1,591	483	52	.....	.....
29 Renfrew	.....	.....	.....	.....	.....	.....	.....	.....	.....
30 St. Catharines	.....	.....	.....	.....	.....	.....	.....	.....	17
31 St. Mary's	.....	.....	.....	.....	.....	.....	.....	.....	106
32 St. Thomas	601	.....	.....	.....	873	.....	.....	.....	.....
33 Sarnia	.....	.....	.....	.....	.....	.....	.....	.....	.....
34 Seaforth	.....	.....	.....	.....	.....	.....	.....	.....	.....
35 Smith's Falls	1,360	364	.....	.....	582	35	.....	210	.....
36 Stratford	600	400	143	390	1,000	50	.....	.....	100
37 Strathroy	.....	.....	.....	.....	.....	.....	.....	.....	100
38 Toronto, Harbord	.....	.....	.....	.....	.....	.....	.....	.....	.....
39 Toronto, Humberside	.....	.....	.....	.....	.....	.....	.....	.....	53
40 Toronto, Jarvis	.....	.....	.....	.....	.....	.....	.....	.....	12
41 Toronto, Malvern Avenue	.....	.....	.....	.....	.....	.....	.....	.....	.....
42 Toronto, Oakwood	2,109	351	.....	.....	355	6	70	.....	62
43 Toronto, Parkdale	.....	.....	.....	.....	.....	.....	.....	.....	.....
44 Toronto, Riverdale	800	1,589	.....	.....	234	.....	1,600	.....	22
45 Vankleek Hill	.....	.....	.....	.....	.....	.....	.....	.....	.....
46 Windsor	686	.....	.....	.....	1,379	.....	.....	.....	.....
47 Woodstock	762	420	835	2,104	914	67	.....	.....	60
Totals	15,592	4,734	2,263	4,189	18,169	1,677	1,744	1,137	1186
High Schools									
1 Alexandria	.....	.....	.....	.....	.....	.....	.....	.....	.....
2 Alliston	.....	.....	.....	.....	.....	.....	.....	.....	.....
3 Almonte	.....	.....	.....	.....	.....	.....	.....	.....	.....
4 Amherstburg	381	.....	.....	.....	.....	.....	.....	.....	.....
5 Arnprior	.....	.....	.....	.....	.....	.....	.....	.....	.....
6 Arthur	.....	.....	.....	.....	.....	.....	.....	132	.....

HIGH SCHOOLS—Continued

SCHOOLS, EQUIPMENT, DESTINATION OF PUPILS, ETC.—Continued

	Total value of Special Equipment as per preceding nine columns	Value of School Sites, Buildings and Furniture	Religious and other Exercises					Destination of Pupils								
			Schools using authorized Scripture Readings	Schools using the Bible	Schools opened with Prayer	Schools closed with Prayer	Commencement Exercises	Commerce	Agriculture	Law, Medicine or the Church	Teaching	The Trades	Overseas Service in the War	Other occupations	Other High Schools or Collegiates	Without occupation
	$	$														
1	.....	.....	.....	....	1	....	1	10	19	10	15	8	6	6	20	18
2	2,939	120,000	.....	1	1	1	1	54	19	1	26	11	16	11	12	16
3	209	50,137	.....	....	1	....	1	34	19	2	16	3	10	10	1	6
4	2,160	60,000	1	1	1	....	1	53	24	6	13	4	2	22	21	1
5	276	12,000	1	1	1	....	....	11	22	1	14	5	1	3	6	1
6	1,295	27,100	1	1	1	....	....	7	4	....	2	....	1	6	5	9
7	1,857	23,200	.....	....	1	....	1	17	8	6	12	6	3	12	4	3
8	2,903	65,746	1	1	1	....	1	32	8	....	9	6	3	17	10	....
9	2,844	90,000	.....	1	1	....	1	55	20	....	11	21	6	32	9	2
10	.....	40,000	1	....	1	....	1	19	15	3	7	2	2	15	6	10
11	.....	50,000	.....	....	1	....	1	21	12	2	19	5	3	12	23	19
12	491	164,863	1	1	1	....	1	103	15	17	25	11	25	24	15	51
13	1,621	25,000	1	....	1	....	1	10	8	1	10	....	1	2	7	1
14	.....	106,900	1	1	1	....	....	55	17	12	9	10	3	22	10	10
15	4,329	50,000	1	1	1	....	1	60	5	4	10	....	4	....	7	8
16	326	55,000	.....	....	1	....	1	56	45	4	50	13	16	19	11	17
17	2,222	206,000	1	....	1	....	1	161	19	11	25	10	8	4	32	97
18	.....	15,000	1	....	1	....	1	2	18	1	6	1	3	2	3	1
19	.....	26,000	1	1	1	....	1	21	13	1	5	1	4	7	5	4
20	1,042	50,000	.....	1	1	....	1	38	1	5	2	13	1	2	3	6
21	.....	105,000	.....	....	1	....	....	2	2	....	18	16	2	36	6	10
22	.....	65,000	.....	1	1	....	....	31	17	1	10	10	3	9	13	11
23	.....	633,416	1	....	1	1	1	58	21	18	22	14	30	173	16	40
24	1,608	100,000	.....	....	1	....	1	28	22	2	23	10	5	11	8	7
25	.....	46,811	1	....	1	....	1	14	7	3	8	5	1	7	2	16
26	.....	83,992	.....	....	1	....	1	30	13	3	16	19	3	29	9	7
27	212	65,000	.....	....	1	....	1	13	30	1	5	4	9	8	6	3
28	2,937	115,000	1	....	1	....	1	46	....	....	3	4	2	4	10	8
29	.....	27,500	.....	1	1	....	1	12	25	4	38	2	2	3	4	6
30	17	44,000	.....	1	1	....	1	44	15	4	14	3	3	31	11	16
31	106	32,000	1	1	1	....	1	12	5	5	18	3	....	5	15	8
32	1,473	75,000	.....	....	1	....	1	59	11	8	30	15	2	5	.....	....
33	.....	50,000	.....	....	1	....	1	40	9	2	6	12	4	6	8	10
34	.....	12,000	.....	....	1	....	1	4	2	3	6	....	2	....	1	....
35	2,551	100,000	.....	....	1	....	....	18	35	3	22	8	5	10	.....	....
36	2,683	100,000	.....	....	1	....	1	.....	14	....	15	....	7	38	14	28
37	100	50,000	1	....	1	....	1	19	8	....	17	2	3	23	2	2
38	.....	150,000	.....	1	1	....	1	50	7	12	15	....	25	50	25	21
39	53	176,000	1	....	1	....	1	30	5	11	11	5	8	26	20	25
40	12	135,500	1	....	1	....	1	96	27	29	19	118	10	82	40	63
41	.....	120,000	1	1	1	....	1	42	6	3	6	5	3	7	10	12
42	2,953	265,670	1	1	1	....	1	40	5	12	12	7	12	11	25	30
43	.....	75,000	.....	1	1	....	1	56	9	10	10	13	6	70	32	17
44	4,245	257,600	.....	1	1	1	1	120	2	6	22	3	8	3	18	13
45	.....	20,000	1	1	1	....	1	14	12	9	10	....	1	5	5	2
46	2,065	255,500	.....	....	1	....	1	61	4	3	8	10	9	34	4	23
47	5,162	50,000	.....	....	1	....	1	26	12	2	13	5	3	10	3	16
	50,691	4,446,935	22	21	47	3	41	1,784	636	241	683	423	286	924	517	674
1	.....	20,000	.....	....	1	....	1	5	23	....	7	....	2	16	6	3
2	.....	35,000	1	....	1	....	....	3	2	2	4	3	....	2	4	8
3	.....	3,225	.....	....	1	....	1	10	6	1	12	2	2	5	6	....
4	381	688	1	....	1	....	1	4	4	2	....	7	....	2	8	6
5	.....	20,000	.....	....	1	....	....	12	9	....	7	5	2	6	1	10
6	132	15,000	.....	....	1	....	1	1	11	2	12	4	....	1	3	....

COLLEGIATE INSTITUTES AND
II. TABLE L—BOARDS OF EDUCATION, APPROVED SCHOOLS,

High Schools	Brick or Stone School House	Number of Acres in Playground	Schools under Board of Education	Approved Schools—Grade I and Grade II	Value of General Library	Scientific Apparatus	Charts, Maps and Globes	Art Models
					$	$	$	$
7 Athens	S	1¼	....	II	692	740	83	80
8 Aurora	B	½	....	II	498	582	109	76
9 Avonmore	B	2	....	.....	361	337	70	57
10 Aylmer	B	4	....	II	924	943	268	85
11 Beamsville	B	1	I	.....	420	525	93	43
12 Belleville	B & S	3	I	II	967	1,590	80	95
13 Bowmanville	B	3	....	.....	672	642	52	103
14 Bradford	B	6	....	II	374	428	76	70
15 Brampton	B	5	....	.....	48	76	23	28
16 Brighton	B	5½	I	.....	327	395	152	52
17 Caledonia	B	2	I	.....	610	835	100	62
18 Campbellford	B	¾	I	.....	712	879	86	95
19 Carleton Place	S	1	I	.....	905	636	58	91
20 Cayuga	B	1½	I	.....	400	345	51	73
21 Chatsworth	B	1	....	.....	287	318	51	51
22 Chesley	B	7	....	.....	452	531	179	74
23 Chesterville	B	3	....	.....	322	474	72	50
24 Colborne	B	⅝	I	II	546	625	60	55
25 Cornwall	B	2	....	II	855	811	150	84
26 Deseronto	B	3	....	I	534	623	64	51
27 Dundalk	B	2	....	.....	239	244	70	57
28 Dundas	B	½	I	.....	749	1,044	85	76
29 Dunnville	B & S	4½	I	.....	569	844	47	66
30 Durham	B	2	....	II	443	484	75	52
31 Dutton	B	1	....	.....	397	665	56	77
32 Elora	S	1½	I	.....	331	451	50	49
33 Essex	B	3¼	....	II	453	758	73	50
34 Fergus	S	⅝	I	.....	718	569	75	75
35 Flesherton	B	2	....	II	321	362	54	52
36 Forest	B	2	....	.....	519	512	50	52
37 Gananoque	B	1	I	.....	784	640	85	119
38 Georgetown	B	4⅓	....	II	494	536	106	67
39 Glencoe	B	1	....	.....	486	627	65	51
40 Gravenhurst	B	5	I	II	398	392	79	50
41 Grimsby	B	4	I	II	334	340	104	65
42 Hagersville	B	3¾	....	II	573	650	82	77
43 Haileybury	B	5	....	.....	751	2,167	77	87
44 Harriston	B	3	I	II	455	507	62	81
45 Hawkesbury	B	1½	I	II	523	358	62	70
46 Iroquois	B	⅓	....	.....	870	1,111	82	76
47 Kemptville	B	2	I	.....	535	730	75	70
48 Kenora	B	3	I	II	428	743	73	50
49 Kincardine	B	7½	I	II	727	901	85	99
50 Leamington	B	2	....	II	495	726	120	85
51 Listowel	B	2	I	.....	462	637	81	81
52 Lucan	B	3⅓	....	II	457	609	93	79
53 Madoc	B	1	....	II	524	958	68	88
54 Markdale	B	2	....	II	324	311	53	53
55 Markham	B	1¾	....	II	477	674	99	77
56 Meaford	B	4½	....	I	748	1,300	110	77
57 Midland	B	6½	....	.....	598	850	69	85
58 Mitchell	B	⅝	....	II	477	586	165	71
59 Morewood	B	3	....	.....	366	385	72	50
60 Mount Forest	B	2½	I	II	537	631	74	131
61 Newburgh	S	1½	I	.....	599	437	75	56
62 Newcastle	B	2	I	.....	391	352	52	49
63 Newmarket	B	2	....	.....	532	658	186	90
64 Niagara	B	¾	....	.....	300	298	72	37
65 Niagara Falls South	B	2	....	I	535	885	90	75

HIGH SCHOOLS—Continued
EQUIPMENT, DESTINATION OF PUPILS, Etc.—Continued

	Equipment								Value of Manual Training Department Equipment			
	Typewriters	Biological Specimens	Equipment for Physical Culture	Gymnasium (not including equipment)	Museum	Aquarium, Herbarium, etc.	Pictures	Total value of General Equipment	Woodwork	Woodturning	Forging	Machine Shop Practice
	$	$	$	$	$	$	$	$	$	$	$	$
7	...	123	36	.....	.....	....	112	1,866	.....	.....	.....	.....
8	70	95	66	.....	.....	....	125	1,621	.....	.....	.....	.....
9	...	53	18	69	.....	2	5	972	.....	.....	.....	.....
10	140	220	105	680	....	....	90	3,455	.....	.....	.....	.....
11	...	12	20	.....	.....	....	3	1,116	.....	.....	.....	.....
12	615	129	50	.....	.....	....	185	3,711	.....	.....	.....	.....
13	50	130	47	.....	85	....	309	2,090	.....	.....	.....	.....
14	20	52	44	.....	20	....	25	1,109	.....	.....	.....	.....
15	...,	50	.....	.....	.....	.....	.....	225	.....	.....	.....	.....
16	...,	75	11	.....	.....	.....	.....	1,012	.....	.....	.....	.....
17	....	102	35	.....	.....	....	.....	1,744	.....	.....	.....	.....
18	...,	96	24	.....	.....	....	164	2,056	.....	.....	.....	.....
19	....	81	.....	.....	.....	....	35	1,806	.....	.....	.....	.....
20	...,	118	16	.....	.....	....	105	1,108	.....	.....	.....	.....
21	....	47	16	.....	.....	....	15	785	.....	.....	.....	.....
22	....	97	21	.....	.....	....	100	1,454	.....	.....	.....	.....
23	....	30	18	.....	.....	....	22	988	.....	.....	.....	.....
24	60	54	28	.....	.....	....	60	1,488	.....	.....	.....	.....
25	1,070	105	60	.....	.....	25	140	3,300	.....	.....	.....	.....
26	....	58	210	.....	.....	....	84	1,624	.....	.....	.....	.....
27	....	33	10	.....	.....	....	25	678	.....	.....	.....	.....
28	795	61	48	.....	.....	3	160	3,021	.....	.....	.....	.....
29	160	122	80	.....	.....	....	250	2,158	.....	.....	.....	.....
30	....	50	24	.....	.....	....	90	1,218	.....	.....	.....	.....
31	....	78	4	.....	.....	....	.....	1,277	.....	.....	.....	.....
32	205	1,005	.....	.....	.....	....	.....	2,091	.....	.....	.....	.....
33	....	91	53	.....	50	....	100	1,628	500	.....	.....	.....
34	....	101	34	.....	.....	....	60	1,632	.....	.....	.....	.....
35	....	52	27	.....	.....	....	25	893	.....	.....	.....	.....
36	50	49	38	.....	.....	....	20	1,290	.....	.....	.....	.....
37	366	130	22	.....	.....	....	453	2,599	.....	.....	.....	.....
38	135	151	39	.....	50	4	79	1,661	.....	.....	.....	.....
39	....	68	38	.....	.....	.....	.....	1,335	.....	.....	.....	.....
40	120	51	10	.....	.....	500	30	1,630	.....	.....	.....	.....
41	....	48	55	.....	.....	....	73	1,019	.....	.....	.....	.....
42	....	102	167	.....	.....	....	.....	1,651	.....	.....	.....	.....
43	151	90	38	.....	.....	....	317	3,678	.....	.....	.....	.....
44	....	99	11	.....	.....	....	.....	1,215	.....	.....	.....	.....
45	....	52	17	.....	.....	....	78	1,160	.....	.....	.....	.....
46	100	101	31	.....	.....	....	100	2,471	.....	.....	.....	.....
47	150	97	33	.....	.....	....	.....	1,690	.....	.....	.....	.....
48	330	63	53	2,500	.....	....	150	4,390	.....	.....	.....	.....
49	375	95	80	800	.....	....	100	3,262	.....	.....	.....	.....
50	....	102	62	.....	.....	....	.....	1,590	.....	.....	.....	.....
51	....	114	47	.....	.....	....	.....	1,422	.....	.....	.....	.....
52	90	100	21	.....	.....	5	25	1,479	.....	.....	.....	.....
53	....	105	35	.....	.....	....	74	1,852	.....	.....	.....	.....
54	....	50	.....	.....	.....	....	.....	791	.....	.....	.....	.....
55	....	102	16	.....	.....	....	75	1,520	.....	.....	.....	.....
56	590	133	324	1,404	22	....	435	5,143	.....	.....	.....	.....
57	95	109	62	.....	50	4	200	2,122	.....	.....	.....	.....
58	....	102	196	550	.....	....	92	2,239	.....	.....	.....	.....
59	....	53	18	.....	1	....	37	982	.....	.....	.....	.....
60	....	102	10	.....	.....	....	125	1,610	.....	.....	.....	.....
61	....	10	.....	.....	.....	....	56	1,233	.....	.....	.....	.....
62	....	42	.....	.....	.....	....	30	916	.....	.....	.....	.....
63	260	122	184	350	.....	10	80	2,472	.....	.....	.....	.....
64	90	38	237	1,475	.....	.....	.....	2,547	.....	.....	.....	.....
65	440	108	466	7,500	.....	....	25	10,124	.....	.....	.....	.....

COLLEGIATE INSTITUTES AND
II TABLE L—BOARDS OF EDUCATION, APPROVED SCHOOLS,

	High Schools	Value of Household Science Department Equipment			Value of Agricultural Department Equipment	Value of Art Equipment (Middle School)	Total value of Special Equipment as per preceding nine columns	Value of School Sites, Buildings and Furniture
		Cookery, Sanitation and Hygiene	Handwork and Machine Sewing	Laundry Work				
		$	$	$	$	$	$	$
7	Athens							21,000
8	Aurora							1,800
9	Avonmore							12,900
10	Aylmer							18,000
11	Beamsville							6,500
12	Belleville	904	66	57		40	1,057	76,000
13	Bowmanville							25,000
14	Bradford							12,000
15	Brampton							
16	Brighton							50,000
17	Caledonia							9,000
18	Campbellford							10,000
19	Carleton Place							12,000
20	Cayuga							8,000
21	Chatsworth							9,000
22	Chesley							20,000
23	Chesterville							8,100
24	Colborne							8,500
25	Cornwall	607	164				771	47,500
26	Deseronto							25,000
27	Dundalk							6,500
28	Dundas							22,000
29	Dunnville							42,175
30	Durham							16,000
31	Dutton							8,000
32	Elora							4,500
33	Essex				235		755	13,000
34	Fergus							8,000
35	Flesberton							25,000
36	Forest							2,500
37	Gananoque							32,000
38	Georgetown				71		71	30,000
39	Glencoe							14,000
40	Gravenhurst							15,000
41	Grimsby							25,000
42	Hagersville				97		97	14,000
43	Haileybury							50,000
44	Harriston							22,000
45	Hawkesbury							25,000
46	Iroquois							8,000
47	Kemptville							15,000
48	Kenora							40,000
49	Kincardine				200	99	299	38,000
50	Leamington							16,000
51	Listowel							15,000
52	Lucan							20,250
53	Madoc							11,300
54	Markdale							9,000
55	Markham							15,000
56	Meaford							25,000
57	Midland							30,000
58	Mitchell							10,000
59	Morewood							11,300
60	Mount Forest							16,000
61	Newburgh							5,500
62	Newcastle							15,000
63	Newmarket							32,000
64	Niagara							4,150
65	Niagara Falls South	499	135	10	372		1,016	35,000

HIGH SCHOOLS—Continued
EQUIPMENT, DESTINATION OF PUPILS, ETC—Continued

	Religious and other Exercises					Destination of Pupils									
	Schools using authorized Scripture Readings	Schools using the Bible	Schools opened with Prayer	Schools closed with Prayer	Commencement Exercises	Commerce	Agriculture	Law, Medicine or the Church	Teaching	The Trades	Overseas Service in the War	Other occupations	Other High Schools or Collegiates	Without occupation
7	1	1	1	....	1	2	13	2	14	4	1	6	5	2
8	.....	1	1	....	.....	7	10	3	10	.....	2	3	2	3
9	.....	.....	1	....	.....	2	13	.....	5	2	....	2	4	2
10	.....	1	1	....	1	7	10	4	2	6	2	2	6	5
11	.....	1	1	....	1	5	8	.....	2	.....	....	.....	3	.....
12	1	1	1	....	1	24	14	2	4	6	8	12	30	20
13	.....	1	1	....	1	4	11	1	5	5	2	.....	5	.....
14	.....	1	1	....	.....	7	4	1	5	.....	1	12	4	.....
15	.....	.....	1	....	1	4	15	3	12	5	5	.....	2	16
16	.....	1	1	....	.....	9	10	.....	.....	2	3	3	10	1
17	1	1	1	....	1	.....	4	.....	7	.....	2	2	2	3
18	1	.....	1	....	1	4	10	1	16	5	8	1	6	5
19	.....	.....	1	....	1	12	6	6	7	8	2	5	1	1
20	.....	.....	1	....	1	8	14	1	6	1	....	3	4	.....
21	.....	1	1	....	.....	3	8	.....	4	.....	.....	.....	5	1
22	.....	1	1	....	.....	3	9	.....	14	.....	3	5	2	.....
23	.....	.....	1	....	1	4	14	.....	4	1	5	1	7	3
24	1	.....	1	....	.....	.....	.....	.....	9	2	....	2	2	3
25	1	.....	1	....	1	19	12	4	22	6	7	9	22	5
26	.....	.....	1	....	1	8	.....	1	5	2	.....	.....	2	3
27	.....	.....	1	....	1	.....	9	.....	5	.....	1	2	2	.....
28	.....	.....	1	....	1	12	3	1	6	7	....	4	4	11
29	1	.....	1	....	1	8	14	1	5	7	....	6	1	.....
30	1	.....	1	....	1	1	7	.....	8	4	....	1	4	.....
31	1	.....	1	....	.....	2	7	.....	10	1	2	2	1	.....
32	1	1	1	....	.....	5	11	1	2	2	....	1	2	2
33	1	.....	1	....	1	19	13	1	4	2	2	4	6	6
34	.....	.....	1	....	1	9	9	3	10	12	7	1	.....	.....
35	.....	.....	1	....	1	2	5	.....	10	1	1	1	3	4
36	.....	.....	1	....	1	5	5	.....	7	4	2	4	1	2
37	1	1	1	....	1	5	9	1	1	.....	....	1	10	3
38	.....	.....	1	....	1	9	8	2	12	3	2	8	4	8
39	1	1	1	....	.....	2	6	.....	2	.....	2	2	2	2
40	.....	1	1	....	.....	1	2	.....	4	.....	....	6	.....	.....
41	.....	.....	1	....	.....	3	2	.....	2	.....	3	10	7	4
42	1	.....	1	....	.....	4	16	.....	4	1	....	2	4	2
43	.....	.....	1	....	1	14	2	1	9	8	3	.....	3	2
44	.....	.....	1	....	.....	2	5	3	12	2	1	10	3	.....
45	.....	1	1	....	1	7	3	1	1	.....	....	3	6	.....
46	.....	.....	1	....	1	1	5	2	4	1	6	1	1	.....
47	.....	1	1	....	.....	5	7	.....	6	5	....	6	2	3
48	.....	1	1	....	1	15	.....	1	4	.....	4	4	5	3
49	1	1	1	....	1	12	16	.....	25	.....	1	1	3	.....
50	.....	.....	1	....	.....	8	9	1	14	.....	.....	6	6	.....
51	.....	.....	1	....	... ..	2	11	3	6	3	5	5	4	4
52	.....	.....	1	....	.....	1	7	1	4	1	....	8	2	3
53	.....	.....	1	....	1	2	8	.....	15	.....	1	2	1	2
54	.....	1	1	....	.....	.....	2	1	9	1	1	11	4	.....
55	.....	.....	1	....	1	4	16	.....	4	1	4	10	2	3
56	.....	.....	1	....	.....	8	21	.....	8	1	6	5	4	.....
57	.....	.....	1	....	1	8	10	.....	1	3	2	15	4	11
58	1	.....	1	....	1	7	10	.....	8	1	5	1	5	1
59	1	1	1	....	1	1	6	.....	6	.....	1	1	3	.....
60	1	.....	1	....	1	11	8	1	9	1	3	1	4	1
61	1	1	1	....	1	1	10	1	13	.....	....	2	3	.....
62	.....	1	1	....	.....	2	1	.....	.....	.....	1	...	.....	1
63	.....	1	1	....	1	22	27	1	6	5	3	2	2	2
64	1	1	1	....	.....	1	1	.....	.....	.....	.....	.....	2	1
65	.....	.....	1	....	1	17	2	.....	4	.....	....	4	2	.....

COLLEGIATE INSTITUTES AND
II. TABLE L—BOARDS OF EDUCATION, APPROVED

High Schools	Brick or Stone School House	Number of Acres in Playground	Schools under Board of Education	Approved Schools—Grade I and Grade II	Value of General Library	Scientific Apparatus	Charts, Maps and Globes	Art Models
					$	$	$	$
66 Norwood	B	8	1	II	410	522	81	57
67 Oakville	B	3¾	1	II	619	722	247	58
68 Omemee	B	1¾	1	.....	342	343	58	67
69 Orangeville	B	4	.....	.....	747	1,041	111	75
70 Oshawa	B	3½	1	I	940	1,317	217	83
71 Paris	B	4	1	II	641	777	122	75
72 Parkhill	B	5	1	.....	535	815	51	78
73 Parry Sound	B	½	.....	II	485	581	91	65
74 Pembroke	B	¾	1	II	737	961	112	79
75 Penetanguishene	B	10	.....	I	432	793	72	60
76 Petrolia	B	2	.....	.....	571	759	66	57
77 Plantagenet	B	1	.....	.....	287	356	56	50
78 Port Dover	B	4	1	.....	494	410	99	52
79 Port Elgin	B	¾	.....	.....	331	440	110	59
80 Port Hope	B	1½	.....	II	758	938	56	76
81 Port Perry	B	1½	1	.....	482	773	60	66
82 Port Rowan	B	3½	1	.....	408	529	54	71
83 Prescott	B	1⅜	1	II	455	655	111	76
84 Richmond Hill	B	1	1	.....	461	561	203	67
85 Ridgetown	B	1⅜	.....	II	806	1,316	132	60
86 Rockland	B	2½	.....	II	393	382	77	53
87 Sault Ste. Marie	B	6	.....	II	655	883	71	75
88 Shelburne	B	1½	1	.....	401	568	110	54
89 Simcoe	B	7½	1	II	658	894	161	97
90 Smithville	B	2	.....	.....	359	529	53	50
91 Stirling	B	2	1	II	428	462	67	75
92 Streetsville	B	¼	.....	.....	288	462	69	51
93 Sudbury	B	5	.....	II	627	1,634	69	89
94 Sydenham	S	2½	.....	.....	477	690	82	76
95 Thorold	B	2¼	.....	.....	311	639	125	48
96 Tillsonburg	B & S	2½	.....	II	477	489	230	79
97 Toronto, Commerce	B	3	1	.....	1,897	3,025	217	102
98 Toronto, North	B	4	1	.....	559	825	68	70
99 Trenton	B	3	1	.....	652	627	203	80
100 Tweed	B	3½	.....	II	300	800	16	34
101 Uxbridge	B	¾	1	.....	524	621	120	83
102 Vienna	B	3½	1	.....	564	319	85	57
103 Walkerton	B	1¼	.....	II	471	618	84	90
104 Wallaceburg	B	1½	.....	II	451	451	63	100
105 Wardsville	B	5	1	.....	305	333	63	51
106 Waterdown	S	3	.....	.....	278	364	52	50
107 Waterford	B	3	.....	.....	519	644	79	70
108 Watford	B	3½	1	II	568	969	123	155
109 Welland	B	3	.....	II	521	992	65	99
110 Weston	B	4	1	II	499	955	252	79
111 Whitby	B	¾	1	II	703	1,417	112	92
112 Wiarton	S	2	.....	.....	559	511	63	59
113 Williamstown	B	3	.....	.....	471	569	83	78
114 Winchester	B	3	.....	II	506	585	65	44
115 Wingham	B	2	.....	II	512	765	176	78
1 Totals, High Schools	.....	.....	50	61,49 II	60,758	79,834	10,642	8,022
2 Totals, Collegiate Institutes	.....	.....	31	81,14 II	61,300	84,427	8,588	5,535
3 Grand Totals, 1917	.....	.....	81	141,63 II	122,058	164,261	19,230	13,557
4 Grand Totals, 1916	.....	.....	79	181,66 II	119,659	162,650	19,157	12,524
5 Increases	.....	.....	2	.....	2,399	1,611	73	1,033
6 Decreases	.....	.....	.....	4 1,3 II	.....	.....	.....	.....
7 Percentages	.....	.....	50.00	*	16.15	21.74	2.54	1.79

* 8.64 per cent., Grade I; 38.88 Grade II; 52.46 not approved.

HIGH SCHOOLS—Continued

SCHOOLS, EQUIPMENT, DESTINATION OF PUPILS, ETC.—Continued

	Equipment								Value of Manual Training Equipment			
	Typewriters	Biological Specimens	Equipment for Physical Culture	Gymnasium (not including equipment)	Museum	Aquarium, Herbarium, etc.	Pictures	Total value of General Equipment	Woodwork	Woodturning	Forging	Machine Shop Practice
	$	$	$	$	$	$	$	$	$	$	$	$
66		63	32					1,165				
67	165	76	28				68	1,983				
68		50	30				20	910				
69		99	292	2,500				4,865				
70	1,162	195	93				207	4,214				
71	150	111	30				87	1,993				
72	350	54	6		19		200	2,108				
73		44	77				94	1,437				
74	510	116	40				188	2,743				
75	180	157	31		25	25	111	1,886				
76		39	16				25	1,533				
77		53	20				4	826				
78		51	7					1,113				
79	100	42	20				61	1,163				
80	515	88	39				200	2,670				
81		56	90				42	1,569				
82		51	42				5	1,160				
83	150	101	44				74	1,666				
84		84	19				61	1,456				
85	300	98	256	900		7	80	3,955				
86		48	10					963				
87	385	90	12		15		150	2,336	539	270	238	2,991
88	100	60	26		2		22	1,343				
89	150	141	25				25	2,151				
90		20	17					1,028				
91		100	17			8		1,157				
92	150	43	12					1,075				
93	690	118	416	2,500			40	6,183				
94		127	30				42	1,524				
95	180	32	5					1,340				
96	150	104	63				372	2,424				
97			71		409		100	5,821				
98		142	61				93	1,818				
99		94	46				70	1,772				
100		54				4	10	1,218				
101		98	30					1,476				
102		59	8					1,092				
103		103	7				120	1,493				
104	200	28					25	1,318				
105		52	5				16	825				
106		26	21				15	806				
107		53	43				38	1,446				
108	45	83	39			10	133	2,125				
109	200	111	192	8,000				10,180				
110		104	43			3	30	1,965				
111	435	114	92	1,200		5	227	4,397				
112	50	35	25				157	1,459				
113	50	104	117	200			122	1,794				
114		33	32					1,265				
115		116	86		44		48	1,825				
1	13,044	10,274	6,283	30,628	792	621	8,697	229,595	1,420	270	238	2,991
2	28,255	11,073	19,681	287,286	4,151	552	15,028	525,876	15,592	4,734	2,263	4,189
3	41,299	21,347	25,964	317,914	4,943	1,173	23,725	755,471	17,012	5,004	2,501	7,180
4	39,393	20,087	24,767	283,374	10,197	1,462	21,185	714,455	15,234	4,958	2,747	7,091
5	1,906	1,260	1,197	34,540			2,540	41,016	1,778	46		89
6					5,254	289					246	
7	5.46	2.82	3.43	42.08	.65	.15	3.14		27.30	8.03	4.01	11.52

COLLEGIATE INSTITUTES AND H TABLE L—BOARDS OF EDUCATION, APPROVED

High Schools	Value of Household Science Department Equipment			Value of Agricultural Department Equipment	Value of Art Equipment (Middle School)	Total value of Special Equipments as per preceding nine columns	Value of School Sites, Buildings and Furniture
	Cookery, Sanitation and Hygiene	Handwork and Machine Sewing	Laundry Work				
	$	$	$	$	$	$	$
66 Norwood							7,000
67 Oakville				303		303	37,000
68 Omemee							9,000
69 Orangeville							20,200
70 Oshawa					83	83	30,000
71 Paris							15,000
72 Parkhill					78	78	10,000
73 Parry Sound							25,000
74 Pembroke							20,000
75 Penetanguishene							25,000
76 Petrolia							6,000
77 Plantagenet							6,000
78 Port Dover							35,500
79 Port Elgin							5,300
80 Port Hope				110		110	30,000
81 Port Perry							10,000
82 Port Rowan							5,000
83 Prescott							19,900
84 Richmond Hill							12,000
85 Ridgetown							16,900
86 Rockland							20,000
87 Sault Ste. Marie	995	104				5,137	65,000
88 Shelburne							20,000
89 Simcoe					58	58	20,000
90 Smithville							7,500
91 Stirling							20,000
92 Streetsville							6,000
93 Sudbury							46,700
94 Sydenham							25,000
95 Thorold							7,000
96 Tillsonburg					12	12	3,500
97 Toronto, Commerce							425,000
98 Toronto, North							148,000
99 Trenton							9,500
100 Tweed							35,000
101 Uxbridge							9,500
102 Vienna							6,500
103 Walkerton							10,000
104 Wallaceburg							25,000
105 Wardsville							5,000
106 Waterdown							2,000
107 Waterford							9,000
108 Watford							16,000
109 Welland					31	31	83,000
110 Weston							59,000
111 Whitby				719		719	20,000
112 Wiarton							9,000
113 Williamstown							12,000
114 Winchester				273	27	300	18,500
115 Wingham				125	77	202	18,000
1 Totals, High Schools	3,005	469	67	2,657	505	11,622	2,725,888
2 Totals, Collegiate Institutes	18,169	1,677	1,744	1,137	1,186	50,691	4,446,935
3 Grand Totals, 1917	21,174	2,146	1,811	3,794	1,691	62,313	7,172,823
4 Grand Totals, 1916	19,752	1,539	1,801	3,594	1,472	58,188	.....
5 Increases	1,422	607	10	200	219	4,125	.....
6 Decreases	.....	.....	.....	.....	.....	.....	.....
7 Percentages	33.98	3.44	2.90	6.08	2.71	.....	.....

HIGH SCHOOLS—Continued

SCHOOLS, EQUIPMENT, DESTINATION OF PUPILS, ETC.—Concluded

Religious and other Exercises					Destination of Pupils								
Schools using authorized Scripture Readings	Schools using the Bible	Schools opened with Prayer	Schools closed with Prayer	Commencement Exercises	Commerce	Agriculture	Law, Medicine or the Church	Teaching	The Trades	Overseas service in the War	Other occupations	Other High Schools or Collegiates	Without occupation
66 1	.....	1	.....	1	4	11	1	3	....	1	2	1	2
67	.....	1	.....	1	12	4	3	9	2	3	3	8	3
68	.....	1	.....	1	2	.....	....	9	....	....	1	2	1
69	.....	1	.....	1	7	3	1	16	....	....	4	4	5
70	.....	1	.....	.....	28	7	1	9	5	....	6	3	8
71 1	1	1	1	1	2	4	....	3	3	....	13	.....	3
72 1	1	1	.....	.....	3	44	1	1	1	....	2	3	3
73 1	.....	1	.....	1	3	.....	....	4	2	....	13	6	7
74	.....	1	.....	1	4	13	2	9	5	11	10	9	12
75	.....	1	.....	.....	8	3	1	.....	1	2	12	1	.....
76 1	1	1	.....	.....	11	2	1	6	6	....	23	5	1
77	.....	1	.....	.....	.....	1	....	2	....	....	2	7	1
78	1	1	.....	.....	1	.....	....	.....	3	....	8	4	.....
79	1	1	.....	.....	4	1	....	4	....	....	4	.....	2
80	.....	1	.....	1	9	24	3	10	8	6	1	.....	7
81	.....	1	.....	1	8	15	....	6	....	....	.....	3	2
82 1	1	1	.....	.....	1	5	....	3	....	....	4	5	.....
83	.....	1	.....	1	14	5	....	7	1	1	5	2	1
84	1	1	.....	.....	5	6	1	4	....	....	1	3	.....
85 1	1	1	.....	1	4	5	....	10	1	3	4	2	.....
86	.....	1	.....	.....	3	3	1	4	....	1	2	2	1
87	.....	1	.....	1	15	3	2	8	6	7	7	8	12
88	.....	1	.....	.....	1	4	....	10	....	2	.....	1	.....
89 1	1	1	.....	1	8	8	2	5	4	5	2	4	6
90	.....	1	1	.....	.....	10	....	2	....	....	5	7	1
91	1	1	.....	.....	4	22	....	5	1	3	2	6	2
92 1	1	1	.....	1	.....	7	....	3	1	....	.....	8	3
93	.....	1	.....	1	20	.....	....	2	5	1	5	4	6
94 1	1	1	.....	1	5	11	....	10	....	5	2	1	4
95	1	1	.....	.....	3	2	....	2	10	....	2	4	1
96	1	1	.....	.....	9	4	3	12	2	....	.....	2	9
97	.....	1	.....	1	202	2	....	.....	....	3	10	3	15
98	1	1	.....	.....	21	1	3	2	....	2	4	3	.....
99 1	.....	1	.....	.....	8	5	....	4	7	2	6	9	7
100 1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	3	.....	.....
101	.....	1	.....	.....	5	16	2	6	....	....	2	4	2
102	.....	1	.....	.....	.....	5	....	.....	....	....	2	2	3
103	1	.....	.....	1	10	5	1	8	1	1	8	.....	1
104	1	1	.....	1	12	10	....	2	1	4	4	7	1
105	.....	1	.....	1	4	5	....	3	1	3	.....	2	2
106	.....	1	.....	1	2	6	....	.....	....	2	.....	2	.....
107 1	1	1	.....	1	.....	3	....	2	2	....	4	1	2
108	1	1	.....	1	3	20	....	10	....	....	.....	2	.....
109	1	1	.....	1	44	17	1	6	1	7	6	12	11
110	1	1	.....	.....	9	5	3	10	3	3	11	8	4
111	.....	1	.....	1	10	5	2	9	3	....	4	2	1
112 1	1	1	.....	1	3	4	....	4	2	2	3	.....	2
113	.....	1	.....	1	1	9	....	7	....	....	7	3	2
114	.....	1	.....	.....	13	12	....	6	3	4	4	4	.....
115 1	1	1	.....	1	8	11	....	12	....	3	.....	6	18
1 37	48	114	2	69	958	921	98	724	244	213	476	459	356
2 22	21	47	3	41	1,784	636	241	683	423	286	924	517	674
3 59	69	161	5	110	2,742	1,557	339	1,407	667	499	1,400	976	1,030
4 60	71	160	7	109	2,725	1,335	413	1,205	775	....	2,327	958	1,530
5	.....	1	.....	1	17	222	....	202	....	....	.....	18	.....
6 1	2	.....	2	.....	.....	.....	74	.....	108	....	927	.....	500
7 36.41	42.59	99.38	3.08	67.90	25.82	14.66	3.19	13.25	6.28	4.70	13.18	9.19	9.70

III. TABLE M—ATTENDANCE, PUPILS IN THE SCHOOLS

COLLEGIATE INSTITUTES

Collegiate Institutes	Pupils					Number of Pupils in—			Number of Pupils from—		
	Total number of pupils on the roll for the year	Number of new pupils admitted during the year	Boys on the roll for the year	Girls on the roll for the year	Average Daily Attendance	Lower School	Middle School	Upper School	Municipalities forming High School District	Municipalities within the County or Territorial District	Other Counties or Districts
1 Barrie	242	94	115	127	192	156	68	18	122	114	6
2 Brantford	549	229	246	303	429	320	211	18	368	161	20
3 Brockville	278	82	119	159	206	177	86	15	195	82	1
4 Chatham	332	140	129	203	230	243	61	28	213	112	7
5 Clinton	180	62	72	108	125	86	67	27	79	99	2
6 Cobourg	178	63	75	103	150	121	40	17	113	65	.....
7 Collingwood	218	79	85	133	150	151	45	22	152	42	24
8 Fort William	253	107	91	162	213	202	48	3	246	6	1
9 Galt	306	130	140	166	256	226	62	18	152	130	24
10 Goderich	182	63	64	118	149	119	54	9	114	68	.....
11 Guelph	403	71	173	230	297	286	86	31	326	71	6
12 Hamilton	760	315	361	399	600	488	212	60	676	68	16
13 Ingersoll	145	50	82	63	113	88	47	10	81	43	21
14 Kingston	514	202	238	276	411	322	179	13	409	96	9
15 Kitchener-Waterloo	264	123	118	146	182	182	63	19	214	50	.....
16 Lindsay	315	108	132	183	260	212	77	26	171	107	37
17 London	1,198	527	504	694	825	882	237	79	978	213	7
18 Morrisburg	118	47	48	70	87	84	26	8	54	63	1
19 Napanee	191	78	63	128	145	130	44	17	94	95	2
20 Niagara Falls	219	72	92	127	174	139	67	13	174	24	21
21 North Bay	226	101	60	166	187	184	35	7	195	5	26
22 Orillia	300	129	117	183	224	219	65	16	195	64	41
23 Ottawa	1,131	460	650	481	904	769	331	31	1,031	61	39
24 Owen Sound	365	160	152	213	295	271	73	21	246	103	16
25 Perth	158	41	58	100	112	102	48	8	77	77	4
26 Peterborough	359	127	156	203	317	249	85	25	297	44	18
27 Picton	221	83	85	136	178	174	38	9	91	128	2
28 Port Arthur	179	75	69	110	158	150	28	1	179	.....	.....
29 Renfrew	241	84	104	137	201	164	60	17	87	147	7
30 St. Catharines	359	130	152	207	282	293	50	16	262	83	14
31 St. Mary's	181	71	74	107	151	128	46	7	103	52	26
32 St. Thomas	469	159	216	253	290	360	95	14	397	70	2
33 Sarnia	297	100	122	175	247	198	79	20	245	52	.....
34 Seaforth	189	51	91	98	131	101	59	29	99	78	12
35 Smith's Falls	210	61	78	132	164	137	63	10	170	13	27
36 Stratford	402	156	158	244	329	293	72	37	286	82	34
37 Strathroy	162	45	74	88	138	97	54	11	77	80	5
38 Toronto, Harbord	596	212	314	282	497	345	214	37	571	.....	25
39 Toronto, Humberside	506	206	221	285	384	330	156	20	437	53	16
40 Toronto, Jarvis	449	178	269	180	366	275	157	17	428	2	19
41 Toronto, Malvern Ave	247	101	104	143	200	169	67	11	224	23	.....
42 Toronto, Oakwood	654	263	282	372	546	409	210	35	609	36	9
43 Toronto, Parkdale	476	180	236	240	385	296	160	20	461	8	7
44 Toronto, Riverdale	406	185	207	199	348	279	111	16	400	2	4
45 Vankleek Hill	168	60	56	112	130	124	36	8	61	90	17
46 Windsor	508	224	236	272	469	421	72	15	383	124	1
47 Woodstock	393	164	159	234	315	272	102	19	173	181	39
Totals	16,697	6,448	7,447	9,250	13,142	11,423	4,346	928	12,715	3,367	615
High Schools											
1 Alexandria	87	31	28	59	68	71	16	.....	74	8	5
2 Alliston	85	32	41	44	66	58	27	.....	33	45	7
3 Almonte	87	33	41	46	70	57	24	6	50	34	3
4 Amherstburg	50	30	31	19	38	41	9	.....	30	20	.....
5 Arnprior	166	59	57	109	130	96	57	13	109	36	21
6 Arthur	81	26	27	54	62	57	16	8	38	43	.....

AND HIGH SCHOOLS—Continued
AND IN THE VARIOUS SUBJECTS, ETC.

Number of Pupils from Families whose Head is occupied as below—								Number of Pupils in the Various Subjects						
Commerce	Agriculture	Law, Medicine, or the Church	Teaching	The Trades	Labouring occupations	Other occupations	Without occupation	English Grammar	English Composition and Rhetoric	English Literature	Canadian History	British History	Ancient History	Mediæval History
1 54	99	10	6	34	5	16	18	156	233	232	224	121	68	8
2 134	127	31	12	173	12	58	2	399	537	537	399	345	130	5
3 18	78	19	1	72	27	50	13	185	270	271	245	180	76	6
4 72	122	22	6	57	43	10	.....	214	323	323	304	304	61	11
5 38	94	8	5	25	10	.....	.....	86	170	170	153	109	67	17
6 21	54	9	3	37	8	29	17	123	171	171	137	147	40	9
7 41	67	8	4	61	18	7	12	151	208	208	146	119	76	8
8 102	6	6	3	56	4	76	.....	182	247	247	172	217	48	2
9 92	55	16	6	87	6	44	.....	174	297	297	294	287	63	13
10 39	71	11	2	36	8	8	7	119	182	182	173	173	54	9
11 95	67	21	15	77	23	74	31	217	369	374	303	163	86	16
12 358	73	35	17	165	30	69	13	488	744	745	700	700	212	29
13 24	60	3	.....	24	6	16	12	101	141	140	94	82	44	6
14 117	72	40	18	136	27	88	16	406	501	501	495	179	154	2
15 124	33	27	11	30	.....	17	22	182	254	254	213	148	61	10
16 37	161	12	6	12	47	27	13	170	310	310	287	292	71	13
17 378	149	87	20	313	48	100	103	871	1,142	1,142	835	679	230	27
18 9	75	5	.....	6	18	4	1	80	117	117	110	110	26	7
19 42	87	12	7	17	12	11	3	122	180	180	174	189	44	8
20 57	32	8	3	45	42	31	1	111	218	218	204	204	52	2
21 42	20	6	4	50	45	44	15	184	226	225	149	219	35	2
22 65	103	12	5	74	25	15	1	200	289	287	265	161	65	4
23 305	68	82	37	228	67	303	41	764	1,124	1,123	639	655	111	20
24 71	113	13	2	87	32	28	19	271	355	355	344	344	73	7
25 16	89	6	1	16	14	16	.....	127	155	155	150	150	23	5
26 80	50	19	6	125	25	49	5	179	348	348	222	165	85	12
27 20	126	8	4	21	22	20	.....	162	217	217	212	104	38	5
28 59	7	5	3	55	7	35	8	152	178	178	113	49	28	...
29 29	163	8	3	10	14	8	6	164	241	238	224	224	60	10
30 111	47	9	5	107	52	15	13	293	351	351	250	127	50	7
31 20	94	5	3	26	24	8	1	128	179	179	127	173	46	1
32 136	90	12	5	92	89	45	.....	360	460	460	292	296	95	5
33 100	41	15	3	93	12	20	13	198	295	295	277	277	79	17
34 19	89	8	5	40	14	11	3	101	175	176	160	104	59	16
35 45	37	5	4	62	23	22	12	169	207	207	200	200	30	5
36 90	96	25	4	86	16	66	19	237	353	366	265	232	44	22
37 22	79	10	2	19	9	5	16	97	158	158	152	152	55	8
38 300	20	40	20	100	.....	66	50	345	589	592	325	367	217	19
39 128	32	35	18	131	41	61	60	330	500	500	276	276	156	7
40 102	18	32	10	93	39	106	49	273	443	442	317	286	76	8
41 78	14	16	6	91	6	13	23	170	243	244	236	236	67	4
42 253	16	44	30	117	28	134	32	417	649	649	381	303	203	18
43 180	17	23	12	134	22	83	5	296	470	470	273	456	78	3
44 119	4	12	8	125	4	122	12	279	405	405	390	390	111	4
45 17	111	8	2	7	2	17	4	122	123	163	160	160	36	3
46 122	23	15	6	152	56	92	42	340	490	462	382	221	71	3
47 64	163	16	2	89	20	31	8	315	382	382	271	168	100	6
4,445	3,312	879	355	3,693	1,102	2,170	741	11,210	16,219	16,241	12,714	11,243	3,754	429
1 15	47	4	3	8	5	5	.....	71	87	87	87	87	16	...
2 15	43	6	.....	3	.....	6	12	58	85	85	58	85	27	...
3 13	38	5	1	18	4	7	1	57	82	82	81	81	24	1
4 4	17	5	1	10	6	7	.....	37	49	50	50	50	9	...
5 34	36	9	.....	28	21	36	2	96	166	166	96	92	57	12
6 16	46	1	.....	10	.....	8	.....	57	80	80	73	45	14	...

COLLEGIATE INSTITUTES
III. TABLE M—ATTENDANCE, PUPILS IN THE SCHOOLS

Number of Pupils in the Various Subjects—Continued

Collegiate Institutes	Modern History	Geography	Reading	Arithmetic and Mensuration	Algebra	Geometry	Trigonometry	French	German	Latin	Greek
1 Barrie	4	156	156	157	234	124	14	198	9	198	....
2 Brantford	7	399	342	365	514	404	9	431	34	370	5
3 Brockville	2	176	143	182	235	234	10	249	18	190	7
4 Chatham	8	243	143	243	323	154	22	160	24	203	10
5 Clinton	8	86	86	87	170	126	17	97	16	117	2
6 Cobourg	8	124	97	137	169	76	8	114	8	115	....
7 Collingwood	6	151	119	151	211	190	13	152	12	147	....
8 Fort William	2	196	196	197	174	144	.....	176	.....	172	4
9 Galt	6	225	174	199	265	153	18	245	22	209	6
10 Goderich	1	119	119	124	182	103	9	110	17	115	2
11 Guelph	11	266	217	266	370	181	18	280	31	278	8
12 Hamilton	27	488	488	488	747	456	46	741	186	742	25
13 Ingersoll	4	88	88	111	143	93	8	106	12	112	9
14 Kingston	5	320	322	421	417	287	9	498	43	397	2
15 Kitchener-Waterloo	12	182	180	182	205	205	9	160	45	175	16
16 Lindsay	6	220	220	202	307	189	18	179	5	181	9
17 London	24	789	838	862	768	411	38	612	38	679	5
18 Morrisburg	1	80	80	80	80	67	7	71	2	87	1
19 Napanee	9	175	130	122	182	93	11	141	21	180	9
20 Niagara Falls	3	126	83	154	203	130	10	170	13	129	....
21 North Bay	1	184	101	184	226	89	6	130	17	112	....
22 Orillia	9	219	122	219	292	150	7	220	19	234	1
23 Ottawa	17	548	505	684	1,092	592	45	1,041	107	858	12
24 Owen Sound	12	271	150	235	339	187	14	219	11	253	2
25 Perth	4	102	58	102	150	52	5	105	19	138	3
26 Peterborough	4	249	148	249	345	169	19	233	32	232	....
27 Pictou	4	174	162	174	217	113	5	127	10	131	....
28 Port Arthur	....	150	101	164	179	66	.....	146	16	146	4
29 Renfrew	12	164	164	164	234	202	13	154	22	146	6
30 St. Catharines	6	293	293	293	276	141	14	262	32	238	11
31 St. Mary's	1	128	128	128	178	103	4	146	11	131	1
32 St. Thomas	9	360	159	360	465	218	5	295	10	265	1
33 Sarnia	5	198	168	198	296	151	18	208	13	206	7
34 Seaforth	14	101	101	101	175	74	16	160	14	163	8
35 Smith's Falls	6	147	147	167	207	122	6	101	13	177	6
36 Stratford	63	280	160	273	368	186	21	193	34	220	....
37 Strathroy	2	97	97	99	157	113	7	128	.....	144	9
38 Toronto, Harbord	19	345	345	345	590	400	27	578	165	570	32
39 Toronto, Humberside	5	330	250	334	501	288	11	402	87	445	18
40 Toronto, Jarvis	8	276	151	275	442	301	15	420	135	415	8
41 Toronto, Malvern Av	2	169	133	169	245	147	10	132	32	213	4
42 Toronto, Oakwood	18	414	284	447	647	649	34	523	152	579	25
43 Toronto, Parkdale	3	296	165	296	467	303	17	434	105	421	16
44 Toronto, Riverdale	5	279	247	279	403	222	11	394	68	380	21
45 Vankleek Hill	5	121	124	121	163	116	3	109	5	102	1
46 Windsor	4	426	311	422	447	195	11	318	12	299	....
47 Woodstock	7	245	229	239	307	184	6	286	25	288	12
Totals	399	11,175	9,224	11,451	15,307	9,353	644	12,354	1,722	12,302	328
High Schools											
1 Alexandria	....	71	71	71	87	40	.....	86	.....	86	....
2 Alliston	....	58	58	58	85	53	.....	75	.....	75	....
3 Almonte	2	57	57	57	85	51	4	46	4	61	....
4 Amherstburg	....	35	41	37	49	24	.....	42	.....	42	....
5 Arnprior	2	96	96	96	166	104	12	95	12	155	....
6 Arthur	7	57	57	57	80	52	7	20	3	60	....

AND HIGH SCHOOLS—Continued
AND IN THE VARIOUS SUBJECTS, ETC.—Continued

Number of Pupils in the Various Subjects—Continued											Special Courses				
Zoology	Botany	Chemistry	Physics	Mineralogy	Writing	Bookkeeping	Stenography	Typewriting	Art	Physical Culture	Commercial	Agriculture	Manual Training	Household Science	Art (Middle School)
140	140	121	216	2	156	153	20	21	137	242	14	....	....	....	8
200	208	249	380	3	105	105	105	45	200	547	105	....	68	96	12
120	120	160	226	2	115	82	38	43	111	277	....	38	....	....	7
188	188	140	256	4	172	65	65	65	125	332	65	....	60	93	6
96	96	163	168	10	86	86	3	1	86	180	....	....	....	....	21
72	72	69	116	3	94	50	54	54	64	173	....	41	....	54	6
111	111	104	104	9	137	38	38	38	126	218	....	....	53	85	7
126	126	48	174	....	146	76	76	76	196	253	76	....	71	105	...
95	95	65	229	2	196	65	65	66	93	299	65	....	98	124	7
73	73	92	94	9	79	74	32	13	74	180	32	....	....	....	...
203	203	179	294	9	195	125	94	95	181	400	95	....	....	....	...
526	526	440	739	3	291	....	....	....	488	751	....	....	228	260	6
72	72	78	119	2	111	22	22	22	69	145	22	....	51	37	...
78	78	145	311	3	123	89	89	98	74	489	89	....	....	....	...
90	90	105	195	6	142	47	47	49	59	262	....	....	90	122	2
199	109	173	261	5	181	50	50	50	106	308	50	....	....	....	12
23	23	266	269	13	512	148	161	160	678	1,181	180	19	253	217	16
77	77	54	106	....	83	....	18	20	66	115	....	....	....	....	...
85	85	61	92	....	122	89	30	30	62	191	30	....	....	....	10
82	82	89	134	1	117	76	83	83	43	219	76	....	....	75	4
55	55	62	147	3	137	64	68	68	55	226	71	....	....	....	...
149	149	151	243	4	141	200	45	45	144	297	45	....	....	....	...
181	181	506	862	6	518	137	109	56	674	1,128	121	....	12	23	97
150	150	175	175	4	127	50	50	50	173	355	50	....	82	132	17
91	91	68	141	1	102	58	14	14	88	158	14	....	....	....	...
86	86	138	198	3	184	81	78	36	74	354	81	....	51	63	11
116	116	83	142	5	160	54	54	65	102	221	54	28	....	....	...
31	31	46	110	....	40	33	33	33	102	179	33	....	55	95	...
112	112	141	201	6	164	79	38	12	135	233	44	42	....	....	13
101	101	131	251	1	340	28	....	....	106	359	99	....	....	....	9
3	3	44	44	....	128	83	22	22	75	180	22	....	....	....	7
214	214	90	90	5	251	251	160	92	210	460	160	....	70	51	11
96	96	103	206	2	143	69	71	71	90	295	69	....	....	....	5
115	115	73	75	9	101	101	....	....	111	187	....	....	....	....	7
112	112	120	172	3	85	64	30	30	117	210	30	39	44	93	...
203	171	164	250	11	83	81	81	81	173	382	81	....	99	140	19
99	99	110	160	1	97	55	8	8	91	162	....	....	....	....	8
316	316	357	512	....	192	34	....	....	228	571	....	....	....	....	...
120	120	127	366	3	220	10	....	....	118	497	....	....	....	....	28
212	212	263	260	7	....	....	....	....	195	427	....	....	....	....	11
167	167	139	227	5	98	30	....	....	133	247	....	....	....	....	4
238	238	338	340	....	238	183	....	....	352	650	....	....	174	234	49
198	198	261	428	7	....	160	....	....	193	473	....	....	....	....	18
284	284	206	383	6	181	66	....	....	265	403	....	....	130	149	27
126	126	160	160	2	121	48	....	....	136	167	....	....	....	....	15
139	139	123	242	4	201	171	171	174	101	507	170	....	....	173	6
131	131	171	283	6	196	73	73	73	133	386	73	....	119	190	10
6,411	6,387	7,151	11,151	190	7,411	3,703	2,195	1,959	7,412	16,476	2,116	207	1,808	2,611	496
.....	71	47	87	....	71	....	....	....	71	87	....	....	....	....	...
58	58	85	85	....	32	....	....	....	58	85	....	....	....	....	8
59	59	26	25	1	57	11	3	....	57	87	....	....	....	....	...
37	37	24	49	....	41	....	....	....	35	50	....	....	....	....	...
96	96	92	164	....	96	....	....	....	96	165	....	....	....	....	...
58	58	16	53	....	28	8	....	....	57	80	....	65	....	....	...

COLLEGIATE INSTITUTES

III. TABLE M—ATTENDANCE, PUPILS IN THE SCHOOLS AND

High Schools—Continued	Pupils					Number of Pupils in—			Number of Pupils from—		
	Total number of pupils on the roll for the year	Number of new pupils admitted during the year	Boys on the roll for the year	Girls on the roll for the year	Average Daily Attendance	Lower School	Middle School	Upper School	Municipalities forming High School Dist't.	Municipalities within the County or Territorial District	Other Counties or Districts
7 Athens	152	47	65	87	100	85	59	8	77	75	....
8 Aurora	111	40	48	63	91	72	26	13	63	48	....
9 Avonmore	49	15	19	30	35	33	16	.....	42	6	1
10 Aylmer	113	35	45	68	80	80	23	10	36	74	3
11 Beamsville	62	23	36	26	44	45	17	.....	31	30	1
12 Belleville	328	137	136	192	260	212	91	25	239	74	15
13 Bowmanville	129	41	50	79	107	80	31	18	80	49	....
14 Bradford	76	31	34	42	54	54	22	.....	30	45	1
15 Brampton	136	56	52	84	128	84	44	8	67	62	7
16 Brightou	65	25	20	45	46	42	23	.....	47	18	....
17 Caledonia	80	30	37	43	63	54	17	9	37	31	12
18 Campbellford	162	66	62	100	115	102	39	21	84	70	8
19 Carleton Place	139	63	49	90	119	94	45	.....	84	36	19
20 Cayuga	89	31	40	49	66	70	10	9	34	55	....
21 Chatsworth	36	14	14	22	26	32	4	.....	33	2	1
22 Chesley	81	25	28	53	64	54	16	11	48	25	8
23 Chesterville	90	32	32	58	66	70	20	.....	27	63	....
24 Colborne	64	28	29	35	48	49	15	.....	29	35	....
25 Cornwall	255	88	93	162	197	179	53	23	130	109	16
26 Deseronto	71	24	24	47	54	56	15	.....	52	9	10
27 Dundalk	66	19	30	36	52	42	24	.....	27	24	15
28 Dundas	134	53	53	81	109	104	20	10	94	38	2
29 Dunnville	120	42	54	66	94	70	40	10	72	43	5
30 Durham	84	34	32	52	70	51	33	.....	39	44	1
31 Dutton	105	36	48	57	80	67	29	9	33	71	1
32 Elora	47	21	18	29	29	36	8	3	15	32	....
33 Essex	121	52	51	70	86	87	28	6	27	94	....
34 Fergus	125	44	48	77	102	86	30	9	49	69	7
35 Flesherton	74	30	32	42	53	51	23	.....	62	10	2
36 Forest	112	48	45	67	83	77	26	9	50	62	....
37 Gananoque	113	40	43	70	84	85	28	.....	82	23	8
38 Georgetown	142	58	68	74	103	96	29	17	37	61	44
39 Glencoe	72	26	16	56	61	51	15	6	18	49	5
40 Gravenhurst	40	9	14	26	33	28	12	.....	31	8	1
41 Grimsby	89	41	29	60	52	66	23	.....	58	6	25
42 Hagersville	77	30	33	44	62	56	21	.....	24	51	2
43 Haileybury	123	60	58	65	95	107	16	.....	62	58	3
44 Harriston	82	37	36	46	65	53	19	10	34	21	27
45 Hawkesbury	70	21	29	41	54	52	18	.....	41	19	10
46 Iroquois	130	30	51	79	110	107	18	5	45	84	1
47 Kemptville	139	42	36	103	90	77	50	12	41	59	39
48 Kenora	98	50	30	68	83	75	23	.....	85	13	....
49 Kincardine	158	45	38	120	131	120	27	11	72	86	....
50 Leamington	142	69	62	80	119	104	29	9	62	58	22
51 Listowel	188	56	89	99	131	111	63	14	76	95	17
52 Lucan	84	31	42	42	66	54	25	5	84	.....	....
53 Madoc	104	40	34	70	92	79	22	3	87	16	1
54 Markdale	51	25	18	33	37	38	13	.....	39	11	1
55 Markham	107	38	48	59	79	73	27	7	25	76	6
56 Meaford	138	60	45	93	115	108	22	8	78	57	3
57 Midland	113	52	46	67	95	85	22	6	88	25	....
58 Mitchell	103	36	48	55	73	64	39	.....	47	55	1
59 Morewood	49	13	22	27	35	35	14	.....	35	1	13
60 Mount Forest	104	33	34	70	76	66	29	9	61	16	27
61 Newburgh	72	23	24	48	57	55	17	.....	12	60	....
62 Newcastle	26	16	13	13	18	16	10	.....	12	14	....
63 Newmarket	207	91	93	114	161	158	26	23	87	96	24
64 Niagara	20	10	3	17	13	15	5	.....	14	6	....
65 Niagara Falls South	74	27	27	47	59	44	27	3	41	33	....

AND HIGH SCHOOLS—Continued

IN THE VARIOUS SUBJECTS, ETC.—Continued

Number of Pupils from Families whose Head is occupied as below—								Number of Pupils in the Various Subjects						
	Commerce	Agriculture	Law, Medicine, or the Church	Teaching	The Trades	Labouring Occupations	Other Occupations	Without Occupation	English Grammar	English Composition and Rhetoric	English Literature	Canadian History	British History	Ancient History	Mediæval History
7	11	105	9	4	13	3	4	3	97	152	152	144	144	59	8
8	13	39	8	3	12	13	13	10	72	111	111	98	98	26	12
9	2	30	2	....	6	1	.....	8	33	49	49	49	32	16	....
10	11	75	4	2	14	5	1	1	80	104	105	103	103	23	1
11	1	31	7	4	8	.....	11	.....	45	62	62	62	41	17	....
12	66	64	18	4	99	7	50	20	212	201	306	276	181	66	14
13	19	41	12	1	34	10	7	5	80	123	123	80	80	28	6
14	10	47	5	.....	4	3	7	.....	54	76	76	76	45	22	....
15	25	57	6	3	22	6	8	9	84	136	136	128	128	44	8
16	7	28	4	3	5	.....	18	.....	27	65	65	48	40	23	....
17	25	49	1	.....	6	8	.....	.....	54	73	73	45	43	17	2
18	38	66	11	3	11	26	6	1	102	102	102	102	35	39	6
19	35	56	4	.....	33	5	6	.....	94	139	139	121	73	45	....
20	9	56	6	.....	9	3	4	2	70	80	80	80	89	10	....
21	3	29	2	.....	1	.....	1	.....	32	36	36	36	36	4	....
22	12	33	4	1	20	2	6	3	54	81	81	70	43	16	11
23	17	62	2	.....	3	4	.....	2	70	90	90	90	54	20	....
24	4	28	6	2	3	3	12	6	49	64	64	64	64	15	....
25	54	90	14	7	66	17	6	1	181	248	248	232	232	50	18
26	15	25	2	.....	18	8	3	.....	56	71	71	42	44	15	....
27	7	39	6	1	2	5	6	.....	42	66	66	66	66	24	....
28	17	33	4	.....	56	2	8	14	87	134	134	109	113	20	9
29	21	50	4	2	29	11	1	2	70	117	117	111	111	37	2
30	5	43	1	1	10	21	3	.....	51	84	84	84	51	25	....
31	2	74	5	.....	14	6	1	3	67	96	96	94	58	27	2
32	5	26	.....	2	5	5	4	.....	36	47	45	45	47	7	....
33	19	72	5	3	2	8	10	2	87	114	114	114	77	27	....
34	13	54	2	2	40	8	4	2	125	125	125	116	125	30	6
35	8	54	5	.....	4	2	1	.....	51	74	74	74	46	23	....
36	12	53	7	4	14	5	6	11	77	103	103	103	59	26	....
37	15	34	6	2	29	6	18	3	85	110	110	110	110	25	....
38	23	64	10	1	30	5	8	1	84	125	125	125	125	29	....
39	11	52	1	.....	3	3	2	.....	51	66	66	66	40	15	....
40	10	8	.....	.....	6	12	4	.....	28	40	40	40	29	12	....
41	13	49	4	.....	8	5	7	3	66	89	89	89	47	23	....
42	12	43	7	.....	8	6	.....	1	56	77	77	77	77	18	....
43	20	12	13	3	15	2	53	5	97	120	116	113	113	11	....
44	10	37	10	2	5	2	14	2	53	77	77	72	42	19	5
45	17	21	4	.....	13	3	8	4	52	67	68	56	41	15	....
46	4	100	.....	1	10	10	3	2	107	130	130	57	68	18	5
47	9	78	7	2	8	8	21	6	77	132	132	127	127	50	5
48	17	13	1	1	22	23	21	.....	75	97	97	97	97	23	....
49	34	86	4	.....	21	8	.....	5	120	158	158	147	147	27	7
50	29	72	3	.....	28	.....	8	2	104	138	138	132	80	28	4
51	35	86	17	2	12	12	19	5	111	188	188	174	120	63	14
52	13	47	10	.....	4	5	4	1	54	79	79	79	79	25	....
53	13	73	4	1	4	3	5	1	79	104	104	101	59	22	3
54	7	23	.....	1	2	1	13	4	38	51	51	51	30	12	....
55	20	62	7	1	3	5	5	4	73	100	101	100	100	28	....
56	26	55	7	.....	27	13	10	.....	107	136	136	126	63	22	6
57	18	24	7	.....	15	18	31	.....	87	107	107	107	107	23	....
58	25	52	2	2	14	3	2	3	70	103	103	103	67	39	....
59	3	29	3	5	2	4	3	.....	35	49	49	49	34	14	....
60	18	52	9	1	14	3	3	4	66	95	95	95	95	29	....
61	4	56	4	.....	5	1	2	.....	55	72	72	72	72	17	....
62	2	17	1	.....	3	2	1	.....	22	26	26	26	10	6	....
63	22	86	15	2	19	39	13	11	129	197	197	182	182	24	11
64	.....	8	.....	.....	5	.....	7	.....	15	20	20	20	11	5	....
65	15	22	1	2	14	4	15	1	40	74	74	71	71	27	3

COLLEGIATE INSTITUTES

III. TABLE M—ATTENDANCE, PUPILS IN THE SCHOOLS

Number of Pupils in the Various Subjects—Continued

High Schools—Continued	Modern History	Geography	Reading	Arithmetic and Mensuration	Algebra	Geometry	Trigonometry	French	German	Latin	Greek
7 Athens	....	97	97	97	152	105	8	87	....	141	4
8 Aurora	....	72	72	73	111	69	13	90	2	93	....
9 Avonmore	....	33	33	33	49	32	.....	32	....	32	....
10 Aylmer	8	80	80	80	106	64	3	76	9	83	....
11 Beamsville	....	45	45	46	62	41	.....	62	....	62	....
12 Belleville	8	221	131	258	297	168	11	245	9	294	1
13 Bowmanville	7	80	80	80	117	117	6	82	18	97	2
14 Bradford	....	54	54	54	76	45	.....	73	....	74	....
15 Brampton	....	84	54	84	136	136	8	120	8	129	4
16 Brighton	....	42	42	42	65	48	.....	42	....	52	....
17 Caledonia	6	54	54	54	74	48	3	74	15	76	....
18 Campbellford	12	102	102	102	156	89	9	126	....	124	4
19 Carleton Place	....	94	94	93	138	72	.....	109	....	113	....
20 Cayuga	9	70	70	70	80	43	.....	71	....	79	....
21 Chatsworth	....	32	32	32	36	23	.....	16	....	36	....
22 Chesley	....	54	54	54	81	46	11	65	3	64	1
23 Chesterville	....	70	70	70	90	54	.....	61	....	61	....
24 Colborne	....	49	49	49	64	36	.....	58	....	59	....
25 Cornwall	6	198	81	181	250	169	18	164	2	177	1
26 Deseronto	....	56	56	56	71	44	..	65	....	61	....
27 Dundalk	....	42	42	42	66	47	.....	34	....	55	....
28 Dundas	....	104	56	104	97	60	9	88	....	88	....
29 Dunnville	3	70	70	70	117	73	6	89	12	101	1
30 Durham	....	59	59	62	84	51	.....	60	....	60	....
31 Dutton	5	67	67	68	96	60	2	62	....	70	....
32 Elora	2	36	36	36	45	21	.....	33	....	45	....
33 Essex	4	87	62	91	115	78	1	103	21	106	....
34 Fergus	3	125	125	86	122	122	6	117	....	119	....
35 Flesherton	....	51	51	51	74	46	.....	28	....	30	....
36 Forest	9	77	77	77	103	59	.....	90	....	101	....
37 Gananoque	....	79	85	85	110	76	.....	86	....	81	....
38 Georgetown	14	96	57	82	128	71	3	90	13	109	1
39 Glencoe	4	51	51	51	66	40	.....	56	5	52	....
40 Gravenhurst	....	28	28	28	40	29	.....	26	....	28	....
41 Grimsby	....	66	66	66	89	47	.....	84	....	88	....
42 Hagersville	....	56	56	56	74	49	.....	67	....	65	....
43 Haileybury	....	112	97	112	87	87	13	100	....	56	....
44 Harriston	4	53	53	53	77	46	6	52	13	70	....
45 Hawkesbury	....	52	52	52	69	42	.....	68	....	65	....
46 Iroquois	....	107	107	107	107	68	5	37	1	110	....
47 Kemptville	7	77	77	77	132	90	5	98	....	107	2
48 Kenora	....	75	75	75	67	67	.....	49	9	62	....
49 Kincardine	4	120	120	120	154	100	7	135	3	133	....
50 Leamington	2	105	104	106	138	86	6	125	1	125	....
51 Listowel	....	111	111	111	188	188	14	140	16	150	1
52 Lucan	5	54	54	54	79	45	.....	67	2	78	....
53 Madoc	....	79	79	79	104	62	3	79	....	80	....
54 Markdale	....	38	38	38	51	30	.....	28	....	32	....
55 Markham	6	73	73	73	102	70	1	102	....	102	....
56 Meaford	2	130	108	105	133	57	6	74	3	94	....
57 Midland	5	87	87	87	110	110	5	113	....	113	....
58 Mitchell	....	70	70	70	103	67	.....	38	6	65	....
59 Morewood	....	35	35	35	49	34	.....	28	....	28	....
60 Mount Forest	9	66	66	66	95	95	1	79	9	80	....
61 Newburgh	....	55	55	55	72	39	.....	37	....	43	....
62 Newcastle	....	22	22	22	26	10	.....	20	....	19	....
63 Newmarket	7	158	158	139	200	151	17	140	12	124	5
64 Niagara	....	15	9	15	20	10	.....	18	2	18	....
65 Niagara Falls South	....	44	40	44	74	40	3	41	....	39	....

AND HIGH SCHOOLS—Continued
AND IN THE VARIOUS SUBJECTS, ETC.—Continued

	Number of Pupils in the Various Subjects—Continued											Special Courses				
	Zoology	Botany	Chemistry	Physics	Mineralogy	Writing	Bookkeeping	Stenography	Typewriting	Art	Physical Culture	Commercial	Agriculture	Manual Training	Household Science	Art (Middle School)
7	97	97	109	152	....	85	.....	.....	....	97	150	....	38	.....	.....	....
8	76	76	59	68	....	72	42	.....	....	78	111	.....	.....	.....	.....	6
9	33	33	16	16	....	33	32	.....	....	33	49	.....	.....	.....	.....	....
10	88	88	71	105	9	80	.....	.....	....	80	113	.....	.....	.....	.....	....
11	...	45	41	62	....	45	.....	.....	....	45	61	.....	.....	.....	.....	....
12	213	213	177	307	6	159	69	38	39	130	321	39	.....	.....	80	7
13	6	86	35	115	6	80	.....	.....	....	80	129	.....	.....	.....	.....	....
14	54	54	45	76	....	54	.....	.....	....	54	76	.....	.....	.....	.....	....
15	84	84	44	136	....	84	53	.....	....	84	.....	.....	.....	.....	.....	....
16	...	.....	40	65	....	42	.....	.....	....	42	65	.....	.....	.....	.....	....
17	60	60	45	47	....	28	.....	.....	....	54	80	.....	.....	.....	.....	....
18	114	114	96	150	12	102	67	.....	....	105	160	.....	.....	.....	.....	....
19	94	94	139	139	.....	.....	.....	.....	....	94	135	.....	.....	.....	.....	....
20	9	79	52	80	9	70	37	.....	....	70	89	.....	.....	.....	.....	....
21	32	32	4	36	....	32	.....	.....	....	32	36	.....	.....	.....	.....	....
22	57	57	46	81	....	54	.....	.....	....	54	81	.....	.....	.....	.....	5
23	67	67	90	90	....	70	.....	.....	....	63	89	.....	.....	.....	.....	....
24	40	40	36	64	....	49	.....	.....	....	40	64	.....	.....	.....	.....	....
25	175	175	144	238	6	81	54	13	13	90	252	13	.....	.....	61	....
26	56	56	44	71	....	56	.....	.....	....	56	71	.....	.....	.....	.....	....
27	...	42	47	66	....	42	.....	.....	....	42	66	.....	.....	.....	.....	....
28	68	68	51	61	....	73	98	36	36	104	134	36	.....	.....	.....	....
29	69	69	71	107	3	70	13	11	13	66	120	.....	.....	.....	.....	....
30	59	59	51	51	....	51	.....	.....	....	51	84	.....	.....	.....	.....	....
31	72	72	63	97	5	36	.....	.....	....	67	105	.....	.....	.....	.....	6
32	38	38	25	22	3	22	.....	.....	....	25	47	.....	.....	.....	.....	....
33	84	84	53	107	2	37	.....	.....	....	91	120	....	94	.....	.....	....
34	95	95	119	122	3	125	47	.....	....	86	125	.....	.....	.....	.....	....
35	51	51	46	51	....	51	12	.....	....	51	74	.....	.....	.....	.....	....
36	86	86	68	103	9	77	.....	.....	....	77	112	.....	.....	.....	.....	....
37	52	52	70	106	....	70	26	12	23	54	107	.....	.....	.....	.....	5
38	99	99	82	126	14	96	41	11	13	57	140	.....	.....	.....	.....	9
39	56	56	15	15	....	51	.....	.....	....	51	72	.....	.....	.....	.....	....
40	28	28	29	40	.....	.....	9	.....	9	28	40	.....	.....	.....	.....	....
41	66	66	47	89	....	42	.....	.....	....	66	89	.....	.....	.....	.....	....
42	56	56	50	75	....	56	26	.....	....	56	77	.....	.....	.....	.....	....
43	23	23	49	49	20	57	17	32	17	31	123	32	.....	.....	.....	....
44	57	57	42	76	2	32	.....	.....	....	52	82	.....	.....	.....	.....	....
45	52	52	17	69	....	42	27	.....	....	51	69	.....	.....	.....	.....	....
46	...	.....	68	68	....	57	57	.....	20	107	128	.....	.....	.....	.....	....
47	84	84	92	133	7	42	.....	.....	....	92	139	.....	.....	.....	.....	15
48	27	27	38	64	....	75	37	30	30	34	98	.....	.....	.....	.....	....
49	54	54	90	154	4	120	.....	.....	....	120	154	....	83	.....	.....	10
50	106	106	83	137	2	104	.....	.....	....	95	142	.....	.....	.....	.....	6
51	111	111	120	188	....	54	54	.....	....	108	188	.....	.....	.....	.....	....
52	59	59	48	80	3	54	.....	.....	....	54	83	.....	.....	.....	.....	....
53	79	79	59	104	....	79	.....	.....	....	95	104	.....	.....	.....	.....	....
54	38	38	29	51	.....	.....	.....	.....	....	37	51	.....	.....	.....	.....	....
55	79	79	75	69	5	73	.....	.....	....	73	107	.....	.....	.....	.....	....
56	68	68	50	93	2	107	104	40	40	67	138	.....	.....	.....	.....	....
57	90	90	59	108	4	52	.....	.....	....	87	113	.....	.....	.....	.....	....
58	65	65	70	103	....	36	.....	.....	....	78	101	.....	.....	.....	.....	8
59	35	35	34	49	....	35	.....	.....	....	35	49	.....	.....	.....	.....	....
60	75	75	62	95	....	66	.....	.....	....	66	104	.....	.....	.....	.....	....
61	55	55	39	72	....	33	.....	.....	....	55	72	.....	.....	.....	.....	7
62	22	22	10	26	....	22	.....	.....	....	22	26	.....	.....	.....	.....	....
63	97	97	77	198	4	139	87	39	39	92	204	39	.....	.....	.....	....
64	15	15	10	20	.....	.....	7	7	8	6	20	.....	.....	.....	.....	....
65	27	27	37	40	....	34	22	22	22	27	74	22	18	....	26	....

COLLEGIATE INSTITUTES
III. TABLE M—ATTENDANCE, PUPILS IN THE SCHOOLS

High Schools—Continued	Pupils					Number of Pupils in		
	Total number of pupils on the roll for the year	Number of new pupils admitted during the year	Boys on the roll for the year	Girls on the roll for the year	Average daily Attendance	Lower School	Middle School	Upper School
66 Norwood	91	41	29	62	72	75	16	.....
67 Oakville	126	52	51	75	110	94	32	.....
68 Omemee	38	19	14	24	31	27	11	.....
69 Orangeville	157	66	59	98	103	104	44	9
70 Oshawa	170	60	75	95	149	125	32	13
71 Paris	86	31	37	49	68	57	21	8
72 Parkhill	93	29	32	61	69	60	27	6
73 Parry Sound	76	36	28	48	59	61	15	.....
74 Pembroke	193	87	102	91	160	147	40	6
75 Penetanguishene	53	15	24	29	40	42	11	.....
76 Petrolia	130	58	38	92	98	103	27	.....
77 Plantagenet	55	26	17	38	43	45	10	.....
78 Port Dover	35	12	12	23	26	28	7	.....
79 Port Elgin	74	25	17	57	61	53	18	3
80 Port Hope	134	134	63	71	114	100	22	12
81 Port Perry	92	42	34	58	70	71	17	4
82 Port Rowan	43	15	14	29	27	34	9	.....
83 Prescott	107	38	46	61	86	72	21	14
84 Richmond Hill	96	42	35	61	73	69	24	3
85 Ridgetown	143	38	49	94	96	93	44	6
86 Rockland	29	18	8	21	23	22	7	.....
87 Sault Ste. Marie	247	112	114	133	195	188	53	6
88 Shelburne	72	23	32	40	53	47	25	.....
89 Simcoe	146	59	60	86	110	84	51	11
90 Smithville	61	18	24	37	46	44	17	.....
91 Stirling	83	25	30	53	65	59	24	.....
92 Streetsville	37	12	14	23	22	23	14	.....
93 Sudbury	150	55	62	88	116	107	36	7
94 Sydenham	134	45	60	74	105	97	30	7
95 Thorold	58	29	31	27	48	40	18	.....
96 Tillsonburg	96	44	42	54	71	70	24	2
97 Toronto, Commerce	636	344	180	456	540	*564	†72	.....
98 Toronto, North	209	88	93	116	168	123	65	21
99 Trenton	126	62	54	72	104	93	33	.....
100 Tweed	55	27	16	39	41	47	8	.....
101 Uxbridge	142	40	56	86	106	93	41	8
102 Vienna	24	6	7	17	16	18	6	.....
103 Walkerton	101	36	46	55	82	71	22	8
104 Wallaceburg	104	32	41	63	83	71	25	8
105 Wardsville	38	13	16	22	24	25	13	.....
106 Waterdown	78	36	35	43	57	55	16	7
107 Waterford	46	21	18	28	36	32	14	.....
108 Watford	112	32	47	65	82	65	37	10
109 Welland	207	82	87	120	140	163	25	19
110 Weston	110	55	50	60	77	71	28	11
111 Whitby	125	60	49	76	90	89	28	8
112 Wiarton	79	21	29	50	60	55	16	8
113 Williamstown	103	27	42	61	86	55	45	3
114 Winchester	109	38	52	57	76	78	23	8
115 Wingham	144	54	57	87	118	82	41	21
1 Totals, High Schools	12,400	4,904	4,906	7,494	9,598	8,767	2,990	643
2 Totals, Collegiate Institutes	16,697	6,448	7,447	9,250	13,142	11,423	4,346	928
3 Grand Totals, 1917–1918	29,097	11,352	12,353	16,744	22,740	20,190	7,336	1,571
4 Grand Totals, 1916–1917	28,833	.....	12,339	16,494	22,781	20,185	7,105	1,543
5 Increases	264	.....	14	250	.....	5	231	28
6 Decreases	.....	.....	.....	.....	41	.....	.....	.....
7 Percentages	.....	39.01	42.45	57.54	78.15	69.38	25.21	5.39

* 1st and 2nd years. † 3rd and 4th years.

AND HIGH SCHOOLS—Continued
AND IN THE VARIOUS SUBJECTS, ETC.—Continued

Number of Pupils from—				Number of Pupils from Families whose Head is occupied as below—							
Municipalities forming High School District	Municipalities within the County or Territorial District	Other Counties or Districts	Commerce	Agriculture	Law, Medicine or the Church	Teaching	The Trades	Laboring occupations	Other occupations	Without occupation
66	46	29	16	10	46	2	.....	9	10	11	3
67	57	69	.....	15	57	4	2	25	8	10	5
68	14	22	2	.....	30	2	2	.....	.....	2	2
69	61	46	50	10	88	5	2	30	8	14	.....
70	132	30	8	40	39	11	2	60	6	12	.....
71	44	36	6	11	39	2	.....	16	3	15	.....
72	36	49	8	19	50	6	1	5	2	6	4
73	68	7	1	8	8	6	1	20	21	16	2
74	144	46	3	31	48	8	1	53	8	44	.....
75	46	7	.....	11	9	4	.....	12	5	12	.....
76	72	58	.....	15	46	5	.....	20	18	22	4
77	53	1	1	3	39	.....	.....	.....	8	3	2
78	19	13	3	1	16	2	1	5	4	5	1
79	40	34	.....	10	33	8	.....	8	4	4	7
80	77	57	.....	29	52	3	1	36	8	4	1
81	34	46	12	10	54	11	1	8	5	1	2
82	18	25	.....	6	27	4	.....	3	1	2	.....
83	82	24	1	39	26	1	3	20	7	4	7
84	21	72	3	14	57	7	.....	6	6	5	1
85	70	71	2	22	74	2	1	9	4	16	15
86	13	15	1	6	13	1	.....	3	5	1	.....
87	221	26	.....	60	18	12	7	112	8	25	5
88	27	44	1	11	44	3	.....	3	4	.....	7
89	58	88	.....	33	57	12	4	20	8	10	2
90	17	29	15	.....	37	5	1	5	2	10	1
91	24	59	.....	4	54	4	.....	6	9	4	2
92	21	10	6	6	16	4	1	3	1	3	3
93	102	48	.....	21	6	19	1	22	33	34	14
94	134	.....	.....	17	93	7	.....	4	5	2	6
95	42	9	7	10	7	6	1	25	4	5	.....
96	55	15	26	24	42	7	2	11	4	4	2
97	619	15	2	197	6	19	7	204	30	101	72
98	172	37	.....	65	20	15	7	49	11	29	13
99	72	16	38	20	47	6	2	27	11	4	9
100	19	36	.....	7	22	2	3	11	5	5	.....
101	53	78	11	25	84	7	3	8	4	9	2
102	21	.....	3	5	17	.....	.....	2	.....	.....	.....
103	59	39	3	26	36	4	4	23	7	.....	1
104	70	28	6	21	37	6	1	20	14	5	.....
105	15	14	9	7	21	5	.....	3	.....	1	1
106	70	3	5	9	49	2	.....	12	.....	6	.....
107	46	.....	.....	10	24	5	.....	2	2	3	.....
108	47	52	13	12	84	2	.....	10	4	.....	.....
109	95	112	.....	50	68	11	3	63	3	5	4
110	66	32	12	23	24	5	2	20	5	7	24
111	72	52	1	10	48	10	3	9	18	24	3
112	37	21	21	18	30	3	.....	5	2	19	2
113	100	3	.....	13	55	9	.....	9	7	6	4
114	50	57	2	13	84	5	.....	6	.....	1	.....
115	130	.....	14	16	68	10	.....	10	16	10	14
1	7,211	4,426	763	2,071	5,137	652	156	2,041	797	1,111	435
2	12,715	3,367	615	4,445	3,312	879	355	3,693	1,102	2,170	741
3	19,926	7,793	1,378	6,516	8,449	1,531	511	5,734	1,899	3,281	1,176
4	19,570	7,823	1,440	6,300	8,492	1,498	471	5,610	2,257	2,978	1,227
5	356	.....	.....	216	.....	33	40	124	.....	303	.....
6	...	30	62	.....	43	.....	.....	.....	358	.....	51
7	68.48	26.78	4.73	22.39	29.03	5.26	1.75	19.70	6.52	11.27	4.04

COLLEGIATE INSTITUTES
III. TABLE M—ATTENDANCE, PUPILS IN THE SCHOOLS

High Schools—Continued	Number of Pupils in the						
	English Grammar	English Composition and Rhetoric	English Literature	Canadian History	British History	Ancient History	Mediæval History
66 Norwood	75	91	91	91	91	16	.....
67 Oakville	94	126	126	126	70	32	.....
68 Omemee	27	38	38	38	38	10	.....
69 Orangeville	104	152	152	148	148	44	4
70 Oshawa	113	166	166	145	79	32	5
71 Paris	58	86	86	75	75	21	7
72 Parkhill	60	87	87	87	93	27	.....
73 Parry Sound	61	76	76	61	76	15	.....
74 Pembroke	147	193	193	186	97	40	4
75 Penetanguishene	42	53	53	53	53	11	.....
76 Petrolia	103	129	129	130	64	27	.....
77 Plantagenet	45	55	55	55	31	10	.....
78 Port Dover	28	35	35	35	35	7	.....
79 Port Elgin	53	74	74	71	71	18	3
80 Port Hope	86	122	122	107	104	22	.....
81 Port Perry	71	90	90	87	43	16	3
82 Port Rowan	34	43	43	43	25	9	.....
83 Prescott	72	105	105	91	48	19	14
84 Richmond Hill	69	95	95	72	54	24	2
85 Ridgetown	93	140	140	137	94	44	5
86 Rockland	22	29	29	29	28	7	.....
87 Sault Ste. Marie	188	244	244	188	128	53	.....
88 Shelburne	47	72	70	57	57	18	.....
89 Simcoe	84	140	140	121	121	51	9
90 Smithville	44	61	61	37	41	17	.....
91 Stirling	59	83	83	83	54	24	.....
92 Streetsville	23	37	37	21	16	14	.....
93 Sudbury	45	143	143	77	79	36	.....
94 Sydenham	97	134	134	97	80	30	7
95 Thorold	41	58	58	58	34	18	.....
96 Tillsonburg	70	94	94	94	94	24	.....
97 Toronto, Commerce	349	636	636	349	223	64	64
98 Toronto, North	123	204	204	188	129	65	7
99 Trenton	93	126	126	126	126	33	.....
100 Tweed	47	55	55	55	32	8	.....
101 Uxbridge	93	136	136	134	83	41	1
102 Vienna	20	23	23	23	17	4	.....
103 Walkerton	71	101	101	93	93	22	7
104 Wallaceburg	71	96	96	96	62	25	.....
105 Wardsville	25	38	38	38	38	13	.....
106 Waterdown	55	71	71	71	78	16	.....
107 Waterford	32	46	46	46	26	14	.....
108 Watford	65	107	107	112	80	37	5
109 Welland	163	199	199	187	137	25	6
110 Weston	71	99	97	100	100	28	.....
111 Whitby	89	117	117	115	115	26	.....
112 Wiarton	55	71	71	69	69	16	.....
113 Williamstown	76	100	100	100	100	24	.....
114 Winchester	78	101	101	101	109	31	.....
115 Wingham	82	134	134	123	87	41	10
1 Totals, High Schools	8,464	11,910	12,009	10,797	8,916	2,886	344
2 Totals, Collegiate Institutes	11,210	16,219	16,241	12,714	11,243	3,754	429
3 Grand Totals, 1917-1918	19,674	28,129	28,250	23,511	20,159	6,640	773
4 Grand Totals, 1916-1917	19,358	27,848	27,964	23,966	20,579	6,496	807
5 Increases	316	281	286	.....	.....	144	.....
6 Decreases	.....	.....	.....	455	420	.....	34
7 Percentages	67.61	96.67	97.08	80.80	69.28	22.82	2.65

AND HIGH SCHOOLS—Continued
AND IN THE VARIOUS SUBJECTS, ETC.—Continued

Various Subjects—Continued

	Modern History	Geography	Reading	Arithmetic and Mensuration	Algebra	Geometry	Trigonometry	French	German
66	.....	75	75	75	91	45	.....	77	.....
67	.....	94	94	94	115	70	.....	110	3
68	.....	27	27	27	37	37	.....	20	.....
69	5	104	104	104	154	51	4	129	16
70	5	125	113	127	143	70	9	145	7
71	.....	54	54	57	83	56	8	29	4
72	6	60	60	62	87	87	.....	52	2
73	.....	61	61	61	76	39	.....	63	.....
74	2	146	111	146	152	80	5	150	9
75	.....	42	42	42	53	32	.....	48	4
76	.....	104	103	103	130	64	.....	98	14
77	.....	45	45	45	55	31	.....	50	.....
78	.....	28	28	28	35	18	.....	6	.....
79	.....	53	53	56	74	45	3	62	.....
80	10	100	85	100	124	52	2	61	16
81	2	71	71	69	71	49	3	90	6
82	.....	34	34	36	43	25	.....	34	.....
83	.....	72	43	72	106	63	14	90	2
84	.....	69	39	69	96	57	3	72	15
85	.....	93	90	93	140	97	6	108	3
86	.....	22	22	22	29	17	.....	28	.....
87	.....	188	188	188	247	144	6	94	.....
88	.....	47	47	47	72	49	.....	40	.....
89	7	84	84	84	100	70	6	25	10
90	.....	44	44	44	61	37	.....	19	.....
91	.....	59	59	59	83	58	.....	58	.....
92	.....	23	23	23	37	23	.....	32	.....
93	.....	95	65	107	149	114	10	106	5
94	.....	97	97	97	134	87	7	112	.....
95	.....	40	40	40	58	40	.....	50	4
96	2	70	70	70	94	94	.....	71	1
97	.....	564	315	590	453	.....	.....	591	.....
98	2	96	123	123	209	208	19	205	70
99	.....	93	93	93	126	65	.....	109	.....
100	.....	47	47	47	55	32	.....	46	.....
101	8	91	93	93	135	84	1	119	9
102	.....	19	19	19	22	17	.....	8	.....
103	1	71	71	70	100	61	7	43	7
104	8	71	71	71	96	62	.....	26	4
105	.....	25	25	25	38	25	.....	14	.....
106	7	55	55	55	71	71	.....	77	3
107	.....	32	32	33	46	26	.....	42	7
108	10	65	65	65	107	75	5	37	.....
109	11	162	163	162	162	91	11	176	13
110	3	74	51	74	104	53	4	93	12
111	3	88	88	88	95	95	3	48	4
112	7	55	55	55	71	44	.....	43	.....
113	3	79	76	78	100	70	.....	90	.....
114	8	78	78	78	103	61	.....	70	2
115	10	82	82	82	133	97	10	113	10
1	282	8,866	8,081	8,882	11,581	7,334	378	8,942	475
2	399	11,175	9,224	11,451	15,307	9,353	644	12,354	1,722
3	681	20,041	17,305	20,333	26,888	16,687	1,022	21,296	2,197
4	651	19,690	17,481	20,141	26,655	16,463	998	20,524	2,297
5	30	351	.....	192	233	224	24	772	.....
6	.....	.....	76	.....	.....	.....	.....	.....	100
7	2.34	68.87	59.47	69.88	92.40	57.34	3.51	73.18	7.55

COLLEGIATE INSTITUTES
III. TABLE M—ATTENDANCE, PUPILS IN THE SCHOOLS

High Schools—Concluded	Number of Pupils in the						
	Latin	Greek	Zoology	Botany	Chemistry	Physics	Mineralogy
66 Norwood	88	.....	74	74	45	91	.....
67 Oakville	107	.....	44	44	67	108	.....
68 Omemee	27	.....	.....	27	22	37	.....
69 Orangeville	125	.....	108	108	92	153	4
70 Oshawa	124	.....	88	88	62	118	4
71 Paris	42	.....	54	54	18	80	.....
72 Parkhill	63	.....	66	66	72	87	4
73 Parry Sound	63	.....	25	25	39	76	.....
74 Pembroke	136	6	107	107	74	147	.....
75 Penetanguishene	45	.....	42	42	31	53	.....
76 Petrolia	79	.....	103	103	64	130	.....
77 Plantagenet	25	.....	45	45	31	55	.....
78 Port Dover	28	.....	28	28	18	35	.....
79 Port Elgin	69	.....	.....	55	40	43	.....
80 Port Hope	76	2	70	70	64	78	2
81 Port Perry	91	.....	74	74	45	91	1
82 Port Rowan	40	.....	34	34	25	43	.....
83 Prescott	85	.....	72	72	50	106	.....
84 Richmond Hill	84	5	55	55	51	54	.....
85 Ridgetown	96	.....	94	94	91	140	.....
86 Rockland	29	.....	22	22	17	17	.....
87 Sault Ste. Marie	142	.....	66	66	110	184	.....
88 Shelburne	49	.....	47	47	48	72	.....
89 Simcoe	56	.....	40	40	56	130	4
90 Smithville	28	.....	44	44	37	61	.....
91 Stirling	44	.....	59	59	58	83	.....
92 Streetsville	35	.....	23	23	14	14	.....
93 Sudbury	72	.....	36	36	73	141	21
94 Sydenham	118	.....	97	97	80	134	.....
95 Thorold	54	1	17	17	39	58	.....
96 Tillsonburg	73	.....	72	72	49	94	1
97 Toronto, Commerce	.....	.....	564	564	26	590	.....
98 Toronto, North	189	15	97	97	115	187	1
99 Trenton	109	.....	50	50	65	126	.....
100 Tweed	44	.....	47	47	8	55	.....
101 Uxbridge	120	.....	97	97	85	135	.....
102 Vienna	10	.....	18	18	16	16	.....
103 Walkerton	60	.....	57	57	48	85	1
104 Wallaceburg	76	.....	79	79	66	96	4
105 Wardsville	16	.....	.....	25	25	38	.....
106 Waterdown	77	.....	62	62	19	71	3
107 Waterford	42	.....	20	32	26	26	.....
108 Watford	62	.....	75	75	77	107	5
109 Welland	128	1	131	131	31	35	4
110 Weston	96	1	75	75	49	99	.....
111 Whitby	86	.....	67	67	55	72	3
112 Wiarton	66	.....	59	59	52	71	6
113 Williamstown	93	.....	79	79	73	100	3
114 Winchester	80	.....	86	86	67	101	6
115 Wingham	101	1	77	77	94	133	7
1 Totals, High Schools	9,025	59	7,406	7,831	6,345	10,701	225
2 Totals, Collegiate Institutes	12,302	328	6,411	6,387	7,151	11,151	190
3 Grand Totals, 1917-1918	21,327	387	13,817	14,218	13,496	21,852	415
4 Grand Totals, 1916-1917	21,118	495	15,422	15,613	14,286	22,544	498
5 Increases	209	.....	.....	.....	.....	.....	.....
6 Decreases	.....	108	1,605	1,395	790	692	83
7 Percentages	73.29	1.33	47.48	48.86	46.38	75.10	1.42

AND HIGH SCHOOLS—Concluded
AND IN THE VARIOUS SUBJECTS, ETC.—Concluded

	Various Subjects—Concluded						Special Courses				
	Writing	Bookkeeping	Stenography	Typewriting	Art	Physical Culture	Commercial	Agriculture	Manual Training	Household Science	Art (Middle School)
66	75	.....	.....	.....	44	91	.....	.....	.....	.....	.....
67	94	10	10	10	36	126	.....	38	.....	.....	.....
68	27	.....	.....	.....	27	38	.....	.....	.....	.....	.....
69	104	55	.....	.....	86	157	.....	.....	.....	.....	10
70	96	41	41	41	88	164	41	.....	.....	.....	4
71	32	57	19	19	54	83	.....	.....	.....	.....	.....
72	29	.....	.....	.....	60	92	.....	.....	.....	.....	.....
73	37	.....	.....	.....	27	76	.....	.....	.....	.....	.....
74	111	55	41	41	34	192	41	.....	.....	.....	.....
75	42	42	6	11	42	53	6	.....	.....	.....	.....
76	66	.....	.....	.....	103	130	.....	.....	.....	.....	.....
77	24	24	.....	.....	45	55	.....	.....	.....	.....	.....
78	17	.....	.....	.....	28	35	.....	.....	.....	.....	.....
79	53	.....	.....	.....	54	74	.....	.....	.....	.....	.....
80	100	65	43	50	49	134	43	24	.....	.....	.....
81	69	.....	.....	.....	68	91	.....	.....	.....	.....	.....
82	34	.....	.....	.....	34	43	.....	.....	.....	.....	.....
83	43	36	7	16	59	107	.....	.....	.....	.....	.....
84	39	.....	.....	.....	55	96	.....	.....	.....	.....	.....
85	93	50	11	11	90	139	11	.....	.....	.....	.....
86	12	12	.....	.....	22	20	.....	.....	.....	.....	.....
87	113	31	31	31	53	247	.....	.....	104	113	19
88	23	.....	.....	.....	43	72	.....	.....	.....	.....	.....
89	84	70	11	11	94	146	.....	.....	.....	.....	6
90	20	.....	.....	.....	44	61	.....	.....	.....	.....	.....
91	59	25	.....	.....	59	83	.....	.....	.....	.....	.....
92	23	21	4	4	23	37	4	.....	.....	.....	.....
93	35	40	40	40	21	150	40	.....	.....	.....	.....
94	97	47	.....	.....	97	131	.....	.....	.....	.....	.....
95	24	13	.....	7	27	58	.....	.....	.....	.....	.....
96	70	65	.....	.....	70	96	.....	.....	.....	.....	.....
97	622	636	636	287	45	636	636	.....	.....	.....	9
98	69	59	.....	.....	96	209	.....	.....	.....	.....	.....
99	93	.....	.....	.....	50	126	.....	.....	.....	.....	.....
100	23	.....	.....	.....	47	55	.....	.....	.....	.....	.....
101	93	.....	.....	.....	104	141	.....	51	.....	.....	11
102	18	.....	.....	.....	18	23	.....	.....	.....	.....	.....
103	71	15	.....	.....	58	100	.....	.....	.....	.....	.....
104	71	10	10	10	71	104	.....	.....	.....	.....	.....
105	13	.....	.....	.....	25	38	.....	.....	.....	.....	.....
106	55	.....	.....	.....	55	78	.....	.....	.....	.....	.....
107	32	.....	.....	.....	32	46	.....	.....	.....	.....	.....
108	65	.....	.....	.....	65	112	.....	.....	.....	.....	.....
109	139	49	37	37	131	204	37	.....	.....	.....	7
110	50	50	.....	.....	75	106	.....	.....	.....	.....	.....
111	82	20	25	25	52	118	25	13	.....	.....	4
112	55	.....	.....	.....	50	79	.....	.....	.....	.....	3
113	76	.....	.....	.....	77	100	.....	30	.....	.....	.....
114	78	.....	.....	.....	90	109	.....	78	.....	.....	12
115	52	.....	.....	.....	67	144	.....	36	.....	.....	.....
1	7,315	2,655	1,266	972	7,049	12,181	1,065	568	104	280	177
2	7,411	3,703	2,195	1,959	7,412	16,476	2,116	207	1,808	2,611	496
3	14,726	6,358	3,461	2,931	14,461	28,657	3,181	775	1,912	2,891	673
4	14,801	7,218	3,216	2,645	15,318	27,674	2,852	828	1,806	2,651	745
5	.....	.....	245	286	.....	983	329	.....	106	240	.....
6	75	860	.....	.....	857	.....	.....	53	.....	.....	72
7	50.61	21.85	11.89	10.07	49.69	98.48	10.93	2.66	6.57	9.93	2.31

TABLE N—PROTESTANT SEPARATE SCHOOLS

——	No. 1 Grattan	No. 2 Hagarty	No. 1 Tilbury North	L'Original Village	Penetanguishene Town	Totals 1917
Number of Schools	1	1	1	1	2	6
Receipts:	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
Balances from 1916	782 69	227 08	23 67	34 61	116 37	1,184 42
Government grants	37 09	147 66	216 10	31 38	349 00	781 23
Municipal grants	12 09	12 66	10 35	.....	.....	35 10
Municipal assessments	736 94	500 00	702 84	659 58	8,150 00	10,749 36
Other sources	.....	223 00	176 71	2 99	253 75	656 45
Totals	1,568 81	1,110 40	1,129 67	728 56	8,869 12	13,406 56
Expenditure:						
Teachers' salaries	506 55	500 00	491 25	552 23	5,328 25	7,378 28
School sites and buildings	.....	9 00	5 05	.....	348 72	362 77
Libraries, maps, apparatus, etc.	35 59	31 50	29 05	48 17	61 66	205 97
Other expenses	87 26	283 43	264 74	69 89	2,666 32	3,371 64
Totals	629 40	823 93	790 09	670 29	8,404 95	11,318 66
Balances on hand	939 41	286 47	339 58	58 27	464 17	2,087 90
Teachers:						
Male	.....	.....	.....	.....	1	1
Female	1	1	1	1	7	11
Certificates	II	III	III	II	1 I; 7 II	1 I; 9 II; 2 III
Salaries	$525	$500	$500	$550	Male, $1,150 Av.Fem.$629	1 male,$1,150 Av. Female, $589
Pupils:						
Total number attending	23	40	13	19	352	447
Boys	9	14	5	13	170	211
Girls	14	26	8	6	182	236
Average attendance	13	24	8	12	242	299
No. in Primer	8	12	1	3	67	91
" 1st Book	3	9	3	1	49	65
" 2nd "	2	5	4	4	70	85
" 3rd "	6	11	3	3	90	113
" 4th "	4	3	2	8	76	93
" in Art	23	40	13	17	352	445
" Geography	23	40	13	17	292	385
" Music	23	40	13	.....	299	375
" Literature	23	40	13	17	352	445
" Composition	23	40	13	17	352	445
" Grammar	4	3	5	9	76	97
" English History	12	19	5	6	95	137
" Canadian History	12	19	5	13	131	280
" Physiology & Hygiene	23	40	13	17	196	289
" Nature Study	23	40	13	17	352	445
" Physical Culture	23	40	13	17	352	445
Brick or frame school house	Frame	Frame	Brick	Brick	1 Br.; 1 Fr.	3 Br.; 3 Fr.
Number of maps	11	9	18	18	25	81
Number of globes	1	1	1	1	2	6

TABLE O—REPORT ON NIGHT SCHOOLS

I. Night Public and Separate Schools

Municipality	Number of Schools	Teachers	Pupils Enrolled	Average Daily Attendance
Hamilton	1	2	65	33
St. Catharines	1	1	23	10
Toronto	9	21	635	369
Hamilton R.C. Sep. Sch	1	1	62	47
Oshawa R.C. Sep. Sch.	1	1	35	12
Totals, 1917-1918	13	26	820	471

II. Night High Schools

Municipality	Number of Schools	Teachers	Pupils Enrolled	Average Daily Attendance
Brantford	1	5	155	70
Cobourg	1	3	32	13
Collingwood	1	3	33	15
Dundas	1	2	22	13
Fort William	1	5	60	35
Gananoque	1	1	*	.....
Guelph	1	3	93	42
Hamilton	1	9	115	40
London	2	12	158	64
Newmarket	1	1	23	10
Niagara Falls	1	8	215	100
Ottawa	2	10	458	71
Parry Sound	1	1	12	8
Port Arthur	1	2	*	.....
Stratford	1	1	58	17
Toronto	3	76	2,298	1,185
Whitby	1	7	146	58
Windsor	1	1	17	10
Woodstock	1	1	32	10
Totals, 1917-1918	23	151	3,927	1,761

*Not reported.

TABLE P—REPORT ON TRUANCY

Cities	No. of children otherwise employed during school hours	No. of cases of truancy reported to the Truant Officers	No. of notices by Truant Officers to parents or guardians	No. of complaints made before Police Magistrates or J. P's	No. of convictions	No. of children reported by Teachers as not attending school
Belleville		5	320			430
Brantford	35	25	50	10	5	20
Chatham	8	33	51	4		140
Fort William	6	10	76			60
Galt	5	10	30	7	6	30
Guelph	6	5	46	1		116
Hamilton		225	1,029	52	15	1,269
Kingston	12	25	399	2	1	18
Kitchener	1	4	64			104
London	35	15	75	17	17	150
Niagara Falls	2	2	24	1		932
Ottawa	10	388	131			4,731
Peterborough	3	79	79	8	8	3
Port Arthur			7	5	5	907
St. Catharines		48	48	1	1	48
St. Thomas	5	95	95	6	6	88
Sarnia		18	9	2	2	52
Sault Ste. Marie	12	652	652	4	4	9
Stratford	45	12	20	6	6	187
Toronto	285	8,259	398	220	238	25
Welland	1	378	71	5	2	
Windsor	26	23	25	6	5	1,200
Woodstock		3	62	24		130
Towns						
Alliston	2	1	6			2
Amherstburg	2	5	5			5
Arnprior		8	4			
Aylmer		20	20			
Barrie	3	10	30	6	6	10
Blenheim	1	2	3			5
Blind River		5				5
Bowmanville		16	16			16
Bracebridge	2	2				2
Brampton			3	2	2	25
Bridgeburg			24			1
Brockville		20	20			20
Bruce Mines	3	4	5			5
Burlington	3	26	26			
Cache Bay			5			
Carleton Place		31	5			
Charlton			3			3
Chesley			8			17
Cobalt	3		12	5	4	6
Cobourg			26			65
Collingwood		62	62			62
Copper Cliff		14	14			14
Cornwall		8	8			
Deseronto			37			37
Dresden		4	3			15
Dundas		11	1	1	1	11
Dunnville		1	1	8		
Englehart		20	5			20
Essex		1	4			2
Ford						10
Fort Frances		2	2			5
Forest		4	3			
Haileybury		23	3			12
Hanover			40			40
Hespeler		20				24
Ingersoll		10	10	1		
Kearney		4	2			6

TABLE P—REPORT ON TRUANCY—Continued

Towns.—Continued	No. of children otherwise employed during school hours	No. of cases of truancy reported to the Truant Officers	No. of notices by Truant Officers to parents or guardians	No. of complaints made before Police Magistrates or J. P's	No. of convictions	No. of children reported by Teachers as not attending school
Keewatin			1			
Kenora			25	4	4	25
Kincardine						2
Kingsville	1	1	1			1
Lindsay		33	33	9	6	
Listowel			5	2	2	12
Little Current		10	10			10
Massey			10			10
Midland		10	18			18
Mimico	1	55	55	1	1	45
Mitchell		1				1
Mount Forest	3		3			6
Napanee		21	16			16
Newmarket		19	24	2	2	4
Niagara	3			3	1	13
North Bay	7	46	21	1		659
Orangeville			8			9
Orillia		27	27	3	3	27
Oshawa		22	18	2	2	22
Owen Sound	3	27	27	2		2
Palmerston			8			8
Paris	1	1				5
Parkhill		5		3	3	
Parry Sound		10	160			67
Penetanguishene		5	5	3	2	48
Perth		2				10
Picton	1	83	12	1		83
Port Hope			14			15
Prescott			11			11
Preston		3	4			13
Renfrew			15	1	1	25
Ridgetown		2	2			2
St. Mary's		18	4			10
Sandwich		30	10	3	3	30
Simcoe			176	4	4	176
Smith's Falls	2		2			152
Southampton		5	5			5
Steelton	4	3	223	3	3	200
Sturgeon Falls						1
Thessalon		5	5			
Thorold	6	2	10			21
Tilbury		5	5			5
Tillsonburg		10	12	2		12
Trenton	20	500	500	5	5	300
Trout Creek		3	3			
Uxbridge		12	12			
Walkerton			5			8
Walkerville						22
Wallaceburg		4	2			4
Waterloo		10	10			40
Webbwood	1	3	3	1	1	
Whitby	1	34	34			34
Wiarton		10	82			65
Villages						
Acton		1	4	1		
Athens		1	1			1
Ayr			34			84
Bancroft		4	2			4
Bath						3
Bayfield			2			
Beamsville		10	10	2		7

TABLE P—REPORT ON TRUANCY—Continued

Villages—Concluded	No. of children otherwise employed during school hours	No. of cases of truancy reported to the Truant Officers	No. of notices by Truant Officers to parents or guardians	No. of complaints made before Police Magistrates or J. P's	No. of convictions	No. of children reported by Teachers as not attending school
Bobcaygeon	.....	3	2	1	.....	3
Bolton	.....	10	10	.....	.....	.....
Bradford	.....	.....	25	.....	.....	25
Brighton	.....	8	8	.....	.....	8
Brussels	2	2	1	.....	.....	2
Burk's Falls	1	.....	32	.....	.....	88
Caledonia	.....	9	14	.....	.....	7
Cannington	.....	5	5	.....	.....	5
Cayuga	1	3	4	.....	.....	.....
Chesterville	.....	3	3	.....	.....	.....
Chippawa	.....	.....	1	.....	.....	7
Clifford	1	1	2	.....	.....	2
Colborne	4	4	5	.....	.....	4
Coldwater	.....	6	20	.....	.....	7
Courtright	.....	.....	2	.....	.....	2
Delhi	2	.....	15	.....	.....	3
Drayton	.....	1	1	.....	.....	1
Elmira	.....	8	25	.....	.....	.....
Elora	1	6	6	.....	.....	2
Exeter	.....	.....	1	.....	.....	2
Fort Erie	.....	18	18	.....	.....	.....
Georgetown	.....	30	25	.....	.....	30
Glencoe	.....	.....	2	.....	.....	5
Grimsby	.....	.....	5	.....	.....	5
Hensall	.....	1	1	.....	.....	1
Hepworth	.....	.....	1	.....	.....	1
Holland Landing	14	.....	.....	.....	.....	15
Iroquois	.....	3	3	.....	.....	.....
Jarvis	1	.....	.....	.....	.....	1
Lakefield	.....	2	2	.....	.....	2
Markdale	.....	2	.....	.....	.....	2
Markham	.....	.....	6	.....	.....	6
Marmora	.....	14	14	.....	1	14
Maxville	.....	150	150	1	.....	150
Merrickville	.....	.....	5	.....	.....	.....
Merritton	3	7	16	.....	.....	9
Millbrook	.....	5	5	.....	.....	5
Milverton	.....	.....	2	.....	.....	2
Neustadt	1	1	1	.....	.....	1
Newburgh	.....	.....	.....	.....	.....	2
Newbury	2	2	2	.....	.....	5
Newcastle	2	4	3	.....	.....	7
New Toronto	.....	.....	127	.....	.....	136
Norwich	1	.....	.....	.....	.....	10
Norwood	.....	2	1	.....	.....	2
Paisley	.....	2	2	.....	.....	1
Port Carling	.....	1	2	1	1	.....
Port Colborne	.....	7	7	.....	.....	7
Port Dalhousie	.....	15	15	2	.....	15
Port Elgin	.....	10	10	.....	.....	10
Port Perry	1	1	1	.....	.....	1
Port Rowan	.....	.....	2	.....	.....	2
Richmond Hill	.....	7	7	.....	.....	7
Shelburne	.....	.....	2	.....	.....	1
South River	.....	.....	23	.....	.....	23
Streetsville	.....	1	1	.....	.....	1
Sutton West	.....	12	16	.....	.....	4
Tara	.....	1	1	.....	.....	1
Thamesville	7	12	7	.....	.....	45
Thedford	.....	7	5	.....	.....	7
Victoria Harbour	.....	3	.....	.....	.....	.....
Waterford	.....	11	7	.....	.....	4
Winchester	.....	.....	4	.....	.....	4

TABLE P—REPORT ON TRUANCY—Concluded

Townships	No. of children otherwise employed during school hours	No. of cases of truancy reported to the Truant Officers	No of notices by Truant Officers to parents or guardians	No. of complaints made before Police Magistrates or J.P's	No. of convictions	No. of children reported by Teachers as not attending school
Brantford	.....	92	92	.....	.....	.....
Burford	52	151	42	.....	.....	.....
Morrison	15	4	15	.....	.....	15
Oakland	.....	.....	21	.....	.....	17
Paipoonge	.....	1	8	.....	.....	9
Scott	3	2	58	1	.....	258
Sydney	2	6	6	.....	.....	.....
Thurlow	54	1	137	.....	.....	117
Tyendinaga	57	99	106	.....	.....	.....
Uxbridge	.....	1	149	.....	.....	706
Waterloo	1	1	34	1	1	134
Totals 1917	798	12,459	7,217	469	380	15,405

NOTE —Out of 305 urban municipalities in the Province, 56 reported no truants, while 67 did not report at all ; the remaining 182 are reported above.

TABLE Q—GENERAL

A General Statistical Abstract, exhibiting the comparative state and progress of Schools (including Collegiate Institutes), from the year 1867

No.	Subjects compared	1867	1872	1877	1882
1	Population	.....	1,620,851	.....	1,926,922
2	School population between the ages of five and sixteen years up to 1882, five to twenty-one subsequently	447,726	495,756	494,804	483,817
3	High Schools (including Collegiate Institutes).	102	104	104	104
4	Continuation Schools	.....	.....	.....	.....
5	Public Schools in operation	4,261	4,490	4,955	5,013
6	Roman Catholic Separate Schools	161	171	185	190
7	Grand total of above schools in operation	4,524	4,765	5,244	5,307
8	Pupils attending High Schools (including Collegiate Institutes and Night High Schools).	5,696	7,968	9,229	12,348
9	Pupils attending Continuation Schools	.....	.....	.....	.....
10	Pupils attending Public Schools (including Kindergarten and Night Public Schools)	382,719	433,256	465,908	445,364
11	Pupils attending Roman Catholic Separate Schools	18,924	21,406	24,952	26,148
12	Grand total of students and pupils attending High, Continuation, Public, and Separate Schools	407,339	462,630	500,089	483,860
13	Amount paid for the salaries of Public and Separate School teachers	$1,093,517	1,371,594	2,038,099	2,144,449
14	Amount paid for the erection and repairs of Public and Separate School houses, and for libraries, apparatus, books, fuel, stationery, etc.	$379,672	835,770	1,035,390	882,526
15	Total amount paid for Public and Separate School purposes	$1,473,189	2,207,364	3,073,489	3,026,975
16	Amount paid for Continuation School teachers' salaries	$.....	.....	.....	.....
17	Total amount paid for Continuation School purposes	$.....	.....	.....	.....
18	Amount paid for High School (and Collegiate Institute) teachers' salaries	$94,820	141,812	211,607	253,864
19	Amount paid for erection and repair of High School (and Collegiate Institute) houses, maps, apparatus, prizes, fuel, books, etc.	$29,361	68,193	132,103	89,856
20	Total amount paid for High School and Collegiate Institute purposes	$124,181	210,005	343,710	343,720
21	Grand total paid for educational purposes as above	$1,597,370	2,417,369	3,417,199	3,370,695
22	Total Public and Separate School Teachers	4,890	5,476	6,468	6,857
23	Male Teachers in Public and Separate Schools	2,849	2,626	3,020	3,062
24	Female Teachers in Public and Separate Schools	2,041	2,850	3,448	3,795
25	Continuation School Teachers	.....	.....	.....	.....
26	High School and Collegiate Institute Teachers.	159	239	280	332
27	Number of all teachers, as specified above	5,049	5,715	6,748	7,189

* Included in Public and Separate School attendances. † Included with year ended six months after

STATISTICAL ABSTRACT

Education in Ontario, as connected with Public, Separate, Continuation and High to 1917, compiled from Returns to the Department of Education

No.	1887	1892	1897	1902	1907	1912	1916	1917
1	.....	2,114,321	.....	2,167,938	.....	‡2,523,358	.....	.....
2	611,212	595,238	590,055	584,512	590,285	609,127	632,527	628,996
3	112	128	130	134	143	148	160	162
4	.....	.....	44	65	107	138	132	137
5	5,277	5,577	5,574	5,671	5,819	5,939	6,091	6,103
6	229	312	340	391	449	513	539	548
7	5,618	6,017	6,088	6,261	6,518	6,738	6,922	6,950
8	17,459	22,837	24,390	24,472	30,331	32,608	§ 32,300	§33,024
9	.....	.....	*1,618	*2,190	*4,744	6,094	§ 5,082	§5,104
10	462,839	458,553	453,256	420,094	413,510	429,030	458,345	458,436
11	30,373	37,466	41,620	45,964	51,502	61,297	69,265	70,048
12	510,671	518,856	519,266	490,530	495,343	529,029	564,992	566,612
13	2,458,540	2,752,629	2,886,061	3,198,132	4,389,524	6,109,547	7,929,490	8,398,450
14	1,283,564	1,301,289	1,329,609	1,627,028	3,166,655	5,164,413	5,422,415	5,713,385
15	3,742,104	4,053,918	4,215,670	4,825,160	7,556,179	11,273,960	13,351,905	14,111,835
16	.....	.....	Included with No. 13	Included with No. 13	Included with No. 13	202,875	224,464	228,362
17	.....	.....	Included with No. 15	Included with No. 15	Included with No. 15	265,087	306,148	324,621
18	327,452	472,029	532,837	547,402	783,782	1,232,537	1,509,227	1,554,049
19	168,160	224,085	183,139	222,278	429,915	720,524	979,027	864,926
20	495,612	696,114	715,976	769,680	1,213,697	1,953,061	2,488,254	2,418,975
21	4,237,716	4,750,032	4,931,646	5,594,840	8,769,876	13,492,108	16,146,307	16,855,431
22	7,594	8,480	9,128	9,631	10,200	11,128	12,465	12,762
23	2,718	2,770	2,784	2,311	1,813	1,511	1,386	1,317
24	4,876	5,710	6,344	7,320	8,387	9,617	11,079	11,445
25	.....	.....	†44	†86	†140	226	234	241
26	398	522	579	593	750	917	1,038	1,051
27	7,992	9,002	9,707	10,224	10,950	12,271	13,737	14,054

Public and Separate School teachers. ‡ Census of 1911. § Figures for the school the calendar year specified.

APPEN-

TEACHERS'

FINANCIAL

Name of Institute	Total Registered Attendance of Members	Receipts		
		Government Grant	Municipal Grant	Members' Fees
		$ c.	$ c.	$ c.
1 Algoma, East	148	.....	.....	35 25
2 Algoma (Eastern Division)	34	50 00	.....	.....
3 Brant	126	.....	39 00	.....
4 Bruce, East	100	.....	50 00	.....
5 Bruce, West	105	.....	50 00	24 00
6 Carleton, East	143	50 00	50 00	71 50
7 Carleton, West, and Lanark, East	129	50 00	50 00	60 00
8 Dufferin	109	50 00	50 00	.....
9 Dundas	102	50 00	50 00	51 00
10 Elgin, East	102	50 00	50 00	53 00
11 Elgin, West	104	50 00	50 00	82 75
12 Essex, North	64	25 00	50 00	.....
13 Essex, South	152	.....	50 00	33 50
14 Frontenac, North, and Addington	47	25 00	15 31	11 75
15 Frontenac, South	103	50 00	50 00	25 25
16 Glengarry	101	50 00	50 00	20 00
17 Grey, East	90	50 00	50 00	.....
18 Grey, South	116	.....	50 00	25 25
19 Grey, West	122	50 00	50 00	61 00
20 Haliburton	38	25 00	.....	.....
21 Haldimand	94	50 00	50 00	.....
22 Halton	101	50 00	50 00	26 00
23 Hastings, Centre	102	50 00	50 00	24 00
24 Hastings, North	54	25 00	.....	12 75
25 Hastings, South, and Belleville	126	50 00	72 31	33 25
26 Huron, East	124	.....	.....	62 00
27 Huron, West	122	50 00	50 00	28 25
28 Kenora	54	50 00	.....	11 50
29 Kent, East	104	50 00	50 00	25 00
30 Kent, West, and City of Chatham	136	50 00	50 00	33 75
31 Lambton, East	118	50 00	50 00	28 25
32 Lambton, West	147	50 00	50 00	71 50
33 Lanark, West, and Smith's Falls	116	50 00	50 00	39 55
34 Leeds, East, and Brockville (No. 2)	113	50 00	50 00	60 00
35 Leeds, West (No. 1)	88	50 00	50 00	21 50
36 Leeds and Grenville (No. 3)	85	50 00	50 00	.....
37 Lennox and Addington	106	50 00	25 00	21 75
38 Lincoln	125	50 00	50 00	25 50
39 Manitoulin, East	26	50 00	.....	5 75
40 Manitoulin, West	34	50 00	.....	27 00
41 Middlesex, East	122	50 00	50 00	31 00
42 Middlesex, West	106	50 00	50 00	154 50
43 Muskoka	130	50 00	.....	52 00
44 Nipissing, North	90	50 00	.....	22 50
45 Norfolk	109	50 00	50 00	49 50
46 Northumberland and Durham No. 1	100	50 00	50 00	19 25
47 Northumberland and Durham No. 2	77	25 00	.....	18 50
48 Northumberland and Durham No. 3	89	50 00	25 00	.....
49 Ontario, North	71	25 00	25 00	17 25

DIX J

INSTITUTES

STATEMENT

	Receipts—Continued		Expenditure				
	Balances and other sources	Total Receipts	Printing, Postage, etc.	Libraries, Educational Journals, etc.	Miscellaneous	Total Expenditure	Balances
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
1	203 85	239 10	17 35	48 00	48 00	113 35	125 75
2	39 60	89 60	5 00	.....	26 50	31 50	58 10
3	160 71	199 71	21 75	.....	115 97	137 72	61 99
4	208 06	258 06	16 19	17 00	57 35	90 54	167 52
5	209 82	283 82	9 00	.....	31 30	40 30	243 52
6	196 67	368 17	11 27	9 47	71 00	91 74	276 43
7	326 16	486 16	68 26	59 26	195 63	323 15	163 01
8	84 28	184 28	14 00	36 50	84 05	134 55	49 73
9	175 03	326 03	22 53	50 00	116 50	189 03	137 00
10	275 48	428 48	16 61	139 20	75 37	231 18	197 30
11	24 01	206 76	3 85	156 70	16 84	177 39	29 37
12	135 89	210 89	7 41	48 00	55 00	110 41	100 48
13	80 32	163 82	93 32	.....	70 50	163 82	.....
14	77 20	129 26	7 48	3 75	52 32	63 55	65 71
15	113 42	238 67	5 49	3 50	45 75	54 74	183 93
16	200 34	320 34	7 52	.....	83 15	90 67	229 67
17	233 49	333 49	5 50	39 25	42 87	87 62	245 87
18	319 24	394 49	10 42	129 25	50 00	189 67	204 82
19	60 70	221 70	8 50	57 00	84 00	149 50	72 20
20	104 18	129 18	5 05	13 00	37 70	55 75	73 43
21	511 07	611 07	8 70	5 75	33 80	48 25	562 82
22	226 62	352 62	22 70	76 25	62 32	161 27	191 35
23	105 35	229 35	15 48	62 50	39 55	117 53	111 82
24	234 11	271 86	7 60	35 00	39 47	82 07	189 79
25	4 23	159 79	8 07	42 00	38 50	88 57	71 22
26	392 38	454 38	19 75	110 25	235 35	365 35	89 03
27	58 33	186 58	34 35	18 75	68 35	121 45	65 13
28	86 68	148 18	6 75	.....	17 05	23 80	124 38
29	335 33	460 33	9 75	.....	111 20	120 95	339 38
30	304 32	438 07	7 40	15 75	81 30	104 45	333 62
31	5 76	134 01	13 50	.....	105 45	118 95	15 06
32	113 84	285 34	11 50	55 00	65 50	132 00	153 34
33	172 41	311 96	16 00	30 50	74 00	120 50	191 46
34	80 68	240 68	6 25	72 00	51 25	129 50	111 18
35	116 90	238 40	15 23	39 50	56 60	111 33	127 07
36	28 59	128 59	11 80	50 00	54 00	115 80	12 79
37	51 86	148 61	15 04	.....	80 45	95 49	53 12
38	86 39	211 89	8 20	.....	91 75	99 95	111 94
39	16 78	72 53	6 36	17 10	33 20	56 66	15 87
40	9 95	86 95	3 27	.....	59 26	62 53	24 42
41	135 45	266 45	64 45	62 07	43 53	170 05	96 40
42	51 73	306 23	38 41	.....	155 44	193 85	112 38
43	115 74	217 74	9 35	34 50	56 32	100 17	117 57
44	73 31	145 81	9 85	.....	57 25	67 10	78 71
45	4 27	153 77	9 75	50 00	20 50	80 25	73 52
46	184 34	303 59	13 85	.....	97 90	111 75	191 84
47	107 38	150 88	7 35	52 75	36 30	96 40	54 48
48	135 76	210 76	11 50	.....	47 55	59 05	151 71
49	14 41	81 66	8 80	.....	64 50	73 30	8 36

TEACHERS'

FINANCIAL

Name of Institute—Concluded	Total Registered Attendance of Members	Receipts		
		Government Grant	Municipal Grant	Members' Fees
		$ c.	$ c.	$ c.
50 Ontario, South	116	50 00	50 00	27 75
51 Oxford	217	75 00	75 00	37 50
52 Parry Sound, East	49	.....	.....	.....
53 Parry Sound, West	44	50 00	.....	11 00
54 Peel	104	.....	.....	104 00
55 Perth and Stratford	210	75 00	75 00	105 00
56 Peterborough	109	50 00	50 00	48 50
57 Prescott and Russell	129	75 00	75 00	20 75
58 Prince Edward	101	50 00	50 00	19 75
59 Rainy River	45	50 00	.....	22 50
60 Renfrew, North	101	50 00	50 00	24 50
61 Renfrew, South	139	50 00	50 00	26 25
62 Simcoe, East	133	50 00	50 00	30 50
63 Simcoe, North	132	50 00	100 00	.....
64 Simcoe, South-West	122	50 00	50 00	28 00
65 Stormont	137	50 00	50 00	13 50
66 Sudbury	90	50 00	.....	.....
67 Thunder Bay	210	50 00	150 00	.....
68 Timiskaming	127	50 00	.....	61 00
69 Victoria	144	.....	.....	67 50
70 Waterloo	290	100 00	100 00	73 75
71 Welland	142	50 00	50 00	33 00
72 Wellington, North	101	50 00	50 00	24 25
73 Wellington, South	133	50 00	50 00	.....
74 Wentworth	128	.....	50 00	62 00
75 York, East	121	50 00	25 00	133 75
76 York, North	91	50 00	100 00	23 00
77 York, West	130	50 00	100 00	32 00
78 Ontario Educational Association*	900	1,400 00	.....	450 85
Cities				
79 Brantford	84	25 00	50 00	.....
80 Guelph	50	25 00	25 00	.....
81 Hamilton	390	100 00	100 00	179 50
82 Kingston	65	25 00	25 00	18 00
83 London	244	75 00	75 00	67 50
84 Ottawa	377	75 00	100 00	138 00
85 Peterborough	93	25 00	25 00	46 50
86 St. Catharines and Niagara Falls	83	50 00	50 00	20 75
87 Toronto, District No. 1	232	57 00	.....	.....
88 " " " 2	226	126 00	.....	56 75
89 " " " 3	213	53 25	.....	52 75
90 " " " 4	222	.....	.....	147 58
91 " " " 5	241	.....	.....	.....
92 " " " 6	230	58 50	.....	54 75
93 " " " 7	209	55 25	.....	56 50
94 Windsor and Walkerville	102	50 00	50 00	26 00
Totals, 1917	12,460	5,475 00	3,701 62	3,821 23
Totals, 1916	12,729	5,875 00	3,596 31	3,107 97
Increases	.....	.....	105 31	713 26
Decreases	269	400 00	.....	.....

* Statement for 1917-1918

INSTITUTES—Concluded

STATEMENT—Concluded

	Receipts—Continued		Expenditure				
	Balances and other sources	Total Receipts	Printing, Postage, etc.	Libraries, Educational Journals, etc.	Miscellaneous	Total Expenditure	Balances
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
50	205 30	333 05	9 23	34 50	63 42	107 15	225 90
51	220 77	408 27	12 35	40 00	79 73	132 08	276 19
52	90 15	90 15	9 25	.....	21 12	30 37	59 78
53	41 04	102 04	2 64	25 00	15 00	42 64	59 40
54	206 36	310 36	6 72	.....	127 89	134 61	175 75
55	254 09	509 09	15 03	.....	236 30	251 33	257 76
56	94 67	243 17	28 32	15 00	46 55	89 87	153 30
57	216 65	387 40	17 17	20 00	39 60	76 77	310 63
58	180 31	300 06	18 96	52 27	51 00	122 23	177 83
59	110 90	183 40	15 50	.....	82 00	97 50	85 90
60	157 84	282 34	16 84	26 00	91 30	134 14	148 20
61	42 95	169 20	8 40	80 00	28 85	117 25	51 95
62	173 23	303 73	13 12	33 50	70 90	117 52	186 21
63	68 78	218 78	16 55	.....	76 35	92 90	125 88
64	81 44	209 44	7 35	121 00	39 15	167 50	41 94
65	113 07	226 57	24 87	77 50	97 43	199 80	26 77
66	40 87	90 87	12 75	.....	26 70	39 45	51 42
67	72 70	272 70	18 75	.....	110 05	128 80	143 90
68	103 04	214 04	23 39	.....	103 65	127 04	87 00
69	113 29	180 79	5 18	.....	40 00	45 18	135 61
70	198 41	472 16	37 71	10 50	219 70	267 91	204 25
71	278 71	411 71	20 35	54 48	118 95	193 78	217 93
72	215 60	339 85	14 14	114 41	47 05	175 60	164 25
73	176 47	276 47	7 30	.....	42 70	50 00	226 47
74	102 04	214 04	43 60	66 69	103 75	214 04	.....
75	152 64	361 39	52 79	112 70	55 46	220 95	140 44
76	147 84	320 84	53 80	54 12	45 52	153 44	167 40
77	260 55	442 55	86 82	83 10	51 50	221 42	221 13
78	1,135 50	2,986 35	1,254 10	.....	753 35	2,007 45	978 90
79	43 52	118 52	85	29 30	49 33	79 48	39 04
80	56 80	106 80	25	48 00	20 95	69 20	37 60
81	383 59	763 09	15 10	209 50	247 30	471 90	291 19
82	52 01	120 01	8 90	24 15	40 75	73 80	46 21
83	153 57	371 07	19 33	.....	126 00	145 33	225 74
84	758 62	1,071 62	108 50	45 00	583 25	736 75	334 87
85	67 70	164 20	7 75	47 20	45 00	99 95	64 25
86	83 63	204 38	7 03	31 80	31 00	69 83	134 55
87	144 97	201 97	20 68	.....	55 10	75 68	126 19
88	83 52	266 27	12 74	47 85	71 45	132 04	134 23
89	136 36	242 36	15 84	.....	70 00	85 84	156 52
90	.....	147 58	18 89	30 00	50 35	99 24	48 34
91	149 90	149 90	31 50	.....	50 00	81 30	68 60
92	150 23	263 48	18 39	.....	25 00	43 39	220 09
93	141 47	253 22	39 45	.....	65 85	105 30	147 92
94	60 64	186 64	11 00	.....	83 85	94 85	91 79
	14,714 16	27,712 01	2,966 49	3,173 12	7,837 59	13,977 20	13,734 81
	19,268 45	31,847 73	2,353 74	3,314 52	14,801 18	20,469 44	11,378 29
	.....	.....	612 75	.....	.....	.....	2,356 52
	4,554 29	4,135 72	.....	141 40	6,963 59	6,492 24	.....

APPEN-

FIFTH CLASSES,

Inspectorate		Name of School (In the case of rural schools the section number and the name of the township are given.)	Post Office
Algoma	1	1 McDonald	Echo Bay
	2	1 St. Joseph	Richard's Landing
	3	1 Aberdeen	Ophir
	4	1 Laird	Laird
Brant and Norfolk (in part)	5	8 Burford	Burford
Bruce, East	6	Mildmay	Mildmay
Bruce, West	7	Tiverton	Tiverton
Dundas	8	6 Mountain	Inkerman
	9	22 Mountain	Mountain Station
	10	4 Winchester	Ormond
Elgin, East	11	1 Southwold	Fingal
	12	8 Southwold	Shedden, R.R No. 3
Elgin, West	13	10 Dunwich	Campbellton
	14	10 Aldboro'	Clachan
Essex	15	Kingsville	Kingsville
Grey, East	16	U12Artemesia & Glenelg	Priceville
	17	3 Euphrasia	Kimberley
Haliburton	18	1 Anson	Minden
Halton and Wentworth (in part)	19	U9 W. Flamboro & Beverly	Dundas, R.R. No. 4
Hastings. N. and Parry Sound, E	20	South River	South River
	21	Trout Creek	Trout Creek
	22	Sundridge	Sundridge
Hastings Centre	23	Marmora	Marmora
Huron East	24	7 Howick	Gorrie
	25	17 Howick	Fordwich
Huron, West	26	Hensall	Hensall
	27	7 Hay	Zurich
	28	5 Stephen	Crediton
	29	U16 Stephen	Dashwood
	30	8 Ashfield	Dungannon
	31	6 Usborne	Woodham, R.R. No. 1
	32	Bayfield	Bayfield
	33	4 West Wawanosh	Lucknow, R.R. No. 2
	34	3 Ashfield	Lucknow, R.R. No. 7
Kent, East	35	3 and 4 Orford	Duart
Kent, West	36	Wheatley	Wheatley

DIX K

1917-1918

Teachers			Pupils		Grade of Fifth Class			Total Value of Approved Equipment	Legislative Grant
Name of Principal and Degree	Professional Certificate	Annual Salary, 1918	No. of Pupils	Average Daily Attendance	A	B	C		
		$						$ c.	$ c.
1 H. R. Ponting	II	750	6	4	....	1	....	221 74	174 34
2 Pearl Walsh	II	900	8	6	1	....	....	336 00	287 20
3 Nina McLeod	II	615	3	2	....	....	1	138 03	81 34
4 Mona Hollingsworth	II	600	3	3	....	....	1	190 01	88 00
5 John Henry	II	1,000	5	2	1	....	....	489 00	152 70
6 John Thos. Kidd	II	1,025	8	4	1	....	....	293 25	139 32
7 Maud Alexander	II	750	4	2	....	1	....	225 68	122 56
8 J. C. Fetterly	II	700	5	4	....	1	....	242 91	89 29
9 Pearl MacPherson	I	750	5	4	1	....	....	509 14	155 92
10 Lena D. MacLean	II	750	6	5	1	....	....	347 13	118 63
11 Libbie MacLennan	II	725	4	3	....	....	1	202 05	73 32
12 Mary MacNish	II	615	5	3	....	....	1	200 41	65 66
13 Winnifred Poole	II	650	5	4	....	....	1	170 45	48 29
14 Maria McLean	II	650	4	3	....	1	....	571 12	91 25
15 Wm. J. Elliott	I	1,400	9	4	1	....	....	365 49	201 54
16 Eleanor Smith	I	750	10	6	1	....	....	210 00	105 37
17 Marjorie Cook	I	725	6	3	....	1	....	218 75	84 99
18 Wilmur Macarthur	II	750	4	3	....	....	1	256 36	79 63
19 Percy W. Hoag	I	750	13	9	....	1	....	217 35	86 73
20 S. G. Gilleland	I	950	6	5	1	....	....	284 33	386 88
21 Robert Ingram	II	800	4	2	....	1	....	202 37	240 46
22 J. H. Stubbs	II	800	13	8	1	....	....	251 99	306 64
23 Charles S. Haig	II	975	6	5	1	....	....	94 17	149 47
24 Viola Isard	I	800	8	7	....	1	....	210 33	111 03
25 Geo. H. Jefferson	II	825	3	3	....	1	....	209 32	85 93
26 Wm. Mackay	II	1,000	8	5	1	....	....	262 55	166 25
27 Nelson E. Dahms	II	900	15	13	1	....	....	278 24	137 82
28 Lulu O. Gaiser, B.A	I	850	8	5	1	....	....	387 67	173 76
29 Geo. S. Howard	II	1,000	7	3	1	....	....	352 50	145 25
30 Fred Ross	II	875	7	3	1	....	....	220 20	132 02
31 Nellie Medd	II	675	14	11	1	....	....	191 73	87 92
32 Murdena Geddes	I	700	8	5	....	1	....	252 71	145 27
33 Norman Garrett	I	700	8	3	....	1	....	213 07	81 30
34 Edna Kentland	II	650	4	3	....	....	1	175 00	*107 50
35 Annie M. Blue	II	700	5	4	....	1	....	273 45	85 72
36 Jean McLean	II	725	11	7	1	....	....	568 03	156 21

*Two years' grants.

FIFTH CLASSES

Inspectorate		Name of School (In the case of rural schools, the section number and the name of the township are given)	Post Office
Lambton, East	37	1 Euphemia	Florence, R.R. No. 2
	38	5 Euphemia	Florence
	39	8 Enniskillen	Oil City
Lambton, West	40	Courtright	Courtright
	41	11 Moore	Brigden
Lincoln and Pelham Tp.	42	*2 Louth	Jordan Station
	43	4 Louth	Jordan
	44	U4 Louth	Jordan
	45	9 Pelham	Fenwick
Middlesex, West	46	†15 Caradoc	Mount Brydges
Northumberland and Durham No. 1	47	18 Darlington	Tyrone
Northumberland and Durham, No. 3	48	U16 and 18 Murray and Brighton	Wooler
Ontario, N. and Parry Sound, N.E.	49	13 Brock	Sunderland
	50	U4 Brock	Manilla
	51	5 Scott	Zephyr
	52	1 Nipissing	Nipissing
	53	U4 N. Himsworth & Ferris	Callander
	54	1 McConkey & Wilson	Loring
Ontario, South	55	4 Pickering (West)	Pickering
Oxford, North	56	10 E. Zorra	Innerkip
Oxford, South	57	12 Dereham	Brownsville
Parry Sound, South	58	U1 Chapman and Croft	Magnetawan
	59	7 Humphrey	Rosseau
	60	Kearney	Kearney
	61	1 McKellar	McKellar
	62	U1 McMurrich and Ryerson	Sprucedale
Peel	63	Bolton	Bolton
	64	Port Credit	Port Credit
Perth, North	65	Milverton	Milverton
	66	U6 Logan	Monkton
Prescott and Russell	67	2 Cumberland	Vars
	68	5 Cumberland	Cumberland
	69	L'Orignal	L'Orignal
	70	1 Plantagenet South	Riceville
Rainy River and Thunder Bay East	71	Rainy River	Rainy River
	72	5 Lash	Emo
	73	1 Schreiber	Schreiber
Renfrew, North	74	6 Ross	Forester's Falls
	75	7 Westmeath	Beachburg
Simcoe, East	76	Victoria Harbour	Victoria Harbour
	77	12 Tay	Waubaushene

*Opened January, 1918. †Continuation School from January, 1918.

1917-1918—Continued

Name of Principal and Degree	Professional Certificate	Annual Salary, 1918	Pupils: No. of Pupils	Pupils: Average Daily Attendance	Grade of Fifth Class: A	Grade of Fifth Class: B	Grade of Fifth Class: C	Total Value of Approved Equipment	Legislative Grant
		$						$ c.	$ c.
37 Evelyn Long	II	675	5	4	....	....	1	149 90	57 49
38 A. Archibald	I	800	17	14	1	....	....	224 11	116 17
39 Vera Thompson	II	625	3	2	....	....	1	102 10	35 21
40 John H. Young	II	775	6	5	....	1	....	224 01	122 40
41 Wm. E. Jarrott	II	1,000	23	13	1	....	....	365 77	145 06
42 Nora McLean	I	800	3	2	....	....	1	208 00	75 80
43 Annie Card	I	700	7	4	....	....	1	168 77	91 77
44 Annie R. Fry	II	625	5	2	....	....	1	229 89	54 23
45 Edward W. Farr	II	1,000	6	3	....	....	1	230 08	78 00
46 Abbie Bole, B.A.	H. S. As't	750	19	17	1	....	....	244 23	48 52
47 Margaret R. Squair	I	650	4	3	....	1	....	137 00	61 20
48 Harold E. Welsh	I	900	10	8	....	1	....	271 99	92 19
49 Edith M. Harvey	II	700	3	2	....	1	....	206 58	80 65
50 Belle Shannon	II	700	3	2	....	1	....	190 53	79 05
51 Julius Rynard	II	900	4	2	....	1	....	211 03	86 11
52 Harold M. Jackson	II	700	5	4	....	1	....	223 05	164 60
53 Mary B. Searson	II	750	7	5	1	....	....	129 85	225 84
54 Clarence M. Ross	II	700	3	2	....	1	....	188 01	157 60
55 Eli Wilson, B.A.	II	750	11	6	1	....	....	292 61	141 76
56 Donta P. Ashworth	II	750	5	3	....	1	....	360 61	101 06
57 Miss M. V. Hopkins	I	750	8	5	1	....	....	345 68	125 18
58 Godfrey Grunig	II	965	4	2	....	1	....	273 43	184 68
59 Mary Jane Graham	II	800	7	5	....	1	....	204 91	170 98
60 Mrs. Mary Dipsam	II	715	7	4	....	1	....	235 05	240 74
61 Mary Vallentyne	II	700	2	2	1	....	....	251 25	200 24
62 Mary V. McDougall, B.A.	I	800	3	2	....	1	....	143 50	208 70
63 Jessie Kelso	I	900	24	19	1	....	....	294 65	169 46
64 G. R. Thompson	II	1,150	12	10	1	....	....	277 98	163 67
55 Wm. R. Burnett	II	975	12	9	1	....	....	373 70	174 02
56 Wm. G. Hammond	I	775	10	5	....	1	....	224 80	87 48
67 Bella J. Gowan	I	750	10	7	1	....	....	214 93	133 99
68 Florence M. Bowland	I	850	16	12	1	....	....	204 25	151 67
69 Rosa Perras	II	500	6	3	1	....	....	129 42	62 94
70 Bessie C. Aylesworth	I	700	4	2	....	1	....	206 12	80 61
71 Persie C. Meadows, B.A.	I	1,200	13	9	1	....	....	247 55	379 50
72 Ruby H. Strachan	II	900	7	5	1	....	....	225 94	265 18
73 Geo. A. Evans	III	1,400	16	11	1	....	....	258 52	271 70
74 Mrs. Roy Pounder	II	900	5	3	....	1	....	258 31	90 83
75 J. W. Whittington	II	1,000	15	11	....	1	....	326 33	97 37
76 John A. Gillespie	II	1,075	16	13	1	....	....	226 98	162 69
77 Alex. Firth	II	1,200	10	4	1	....	....	209 25	130 92

FIFTH CLASSES

Inspectorate		Name of School (In the case of rural schools the section number and the name of the township are given)	Post Office
Simcoe, North	78	3 Nottawasaga	Duntroon
	79	6 Flos	Phelpston
Sudbury, etc	80	Cache Bay	Cache Bay
	81	2 Denison & Drury	Worthington
	82	1 Wallbridge	Byng Inlet
Victoria, East	83	3 Somerville and Galway	Kinmount
Victoria, West	84	8 Eldon	Kirkfield
Waterloo, South	85	Hespeler	Hespeler
Waterloo, North	86	16 Wellesley	Wellesley
Welland	87	9 Bertie	Stevensville
Wellington, South	88	Consolidated School	O.A.C., Guelph
	89	6 Erin	Hillsburg
Wentworth	90	5 Ancaster	Ancaster
	91	3 Barton	Upper Hamilton
	92	3 Saltfleet	Stony Creek
York, North	93	12 Whitchurch	Bethesda
	94	11 King	Kettleby
	95	23 King	King
York, West	96	Mimico	Mimico
	97	Woodbridge	Woodbridge
R. C. Separate Schools—			
Inspector Finn	98	7 Bromley	Douglas
	99	Killaloe	Killaloe
	100	Mattawa	Mattawa
Inspector Jones	101	16 Cornwall	St. Andrews, West
Inspector Lee	102	6 Ellice and Logan	Sebringville, R.R. No. 1,
	103 U2	Hibbert, McKillop and Logan	Dublin
	104	2 Ashfield	Goderich, R.R. No. 3
Inspector Bennett	105	1 Brougham	Ashdad, R.R. No. 1
Inspector Sullivan	106	7 Sandwich, S	Maidstone, R.R. No. 1

1917-1918—Concluded

Teachers			Pupils		Grade of Fifth Class				
Name of Principal and Degree	Professional Certificate	Annual Salary, 1918	No. of Pupils	Average Daily Attendance	A	B	C	Total Value of Approved Equipment	Legislative Grant
		$						$ c.	$ c.
78 Emma Williams	II	700	3	2	....	1	....	142 00	74 20
79 John Hall	II	750	3	2	....	....	1	208 00	75 84
80 Adam L. Hartimer	II	1,000	10	8	....	1	....	152 00	230 40
81 James E. Bevens	II	1,200	3	3	....	....	1	105 00	131 00
82 Angus W. Cameron	II	1,100	4	3	....	1	....	259 00	181 80
83 Fred. McEwan	II	900	8	7	1	....	....	80 94	122 61
84 Margaret Urquhart	II	700	3	2	....	1	....	241 12	80 43
85 James D. Ramsay	II	1,500	7	3	1	....	....	362 13	165 06
86 Helen MacGregor	II	775	6	4	....	1	....	227 00	73 32
87 Irene F. Foster	I	900	13	12	....	1	....	239 58	113 95
88 J. A. Macdonald	I	1,250	4	2	1	....	....	352 00	144 00
89 R. R. MacKay	II	850	4	3	....	1	....	219 00	86 90
90 Robert A. Riddell	II	1,000	6	5	1	....	....	239 83	133 98
91 Archibald McVicar, B.A	II	1,200	6	2	....	1	....	323 40	95 19
92 Robert Lloyd Hyslop	II	950	5	4	1	....	....	256 00	135 60
93 Isaac Pike	II	770	7	3	....	....	1	229 85	77 98
94 Frances L. Clunas	II	725	3	2	....	....	1	202 95	73 61
95 Walter Rolling	II	750	3	2	....	....	1	220 84	77 08
96 Jno. W. English, B.A	I	2,300	23	18	1	....	....	233 33	188 33
97 Geo. W. Shore	II	1,000	8	7	1	....	....	261 10	166 11
98 Sr. M. Margaret	I	700	43	33	1	....	....	497 60	352 82
99 Sr. M. Nativity	II	400	15	12	1	....	....	149 31	96 06
100 Sr. St. André Corsini	II	650	3	2	1	....	....	399 51	720 77
101 Sr. St. Agnes of Poitiers	II	500	9	6	....	1	....	516 08	208 89
102 Sr. M. Madeleine (Stella McDonald)	II	630	6	4	....	1	....	367 74	191 65
103 Sr. M. Dolores (Elizabeth McIntyre)	I	1,000	36	31	1	....	....	509 17	482 01
104 Sr. M. Eugenia	II	600	3	2	....	1	....	545 70	214 44
105 Sr. Rachel (Rachel Whelan)	II	600	14	13	1	....	....	223 89	199 04
106 Miss N. L. Moynihan	II	700	4	2	....	....	1	226 45	173 96
Totals, 1917–1918	.....	*841	866	611	47	40	19	27,313 92	†15,579 80
Totals, 1916–1917		*800	833	597	45	48	9	24,689 70	13,992 16
Increases	.....	41	33	14	2	....	10	2,624 22	1,587 64
Decrease	.....	.....	.....	.....	....	8	....	.....	.....

* Average salary.

† In addition there was paid on equipment, the sum of $293.55 to schools that did not qualify as Fifth Classes in 1917-1918.

APPENDIX L

RURAL SCHOOL LIBRARIES, OCT. 1st, 1917, TO OCT. 1st, 1918

Inspectorate	No. of schools purchasing books to the amount of $10.00 during the year	Total amount expended by such schools during the year for books recommended	Total Government grant	No. of rural public school libraries in inspectorate	No. of libraries established during year
		$ c.	$ c.		
Algoma	4	77 78	40 00	50	2
Brant, and Norfolk in part	7	142 37	70 00	78	.....
Bruce, East	4	43 14	40 00	85	.....
Bruce, West	36	527 40	360 00	83	.....
Carleton East	11	130 78	110 00	83	.....
Carleton West and Lanark East	7	91 91	70 00	79	.....
Dufferin	13	140 47	130 00	92	.....
Dundas	19	274 75	190 00	74	.....
Elgin, East	13	153 59	130 00	75	.....
Elgin, West	.....	.....	.....	29	.....
Essex	17	224 61	170 00	94	1
Frontenac, North, and Addington	20	228 98	200 00	75	1
Frontenac, South	3	39 50	30 00	95	.....
Glengarry	2	23 17	20 00	76	.....
Grey, East	3	34 05	30 00	81	.....
Grey, South	2	29 58	20 00	66	.....
Grey, West	2	20 11	20 00	72	.....
Haldimand	19	276 60	190 00	73	2
Haliburton	1	11 10	10 00	66	.....
Halton, and Wentworth in part	12	152 83	120 00	68	.....
Hastings, Centre	15	177 22	150 00	73	.....
Hastings, North, South Nipissing and N. W. Parry Sound	22	308 62	220 00	87	.....
Hastings, South	7	94 60	70 00	50	.....
Huron, East	8	106 76	80 00	84	.....
Huron, West	4	44 57	40 00	99	.....
Kenora and Thunder Bay West	.....	.....	.....	36	.....
Kent, East	23	345 19	230 00	70	1
Kent, West	12	140 94	120 00	63	.....
Lambton, East	14	151 62	140 00	85	.....
Lambton, West	13	156 77	130 00	81	.....
Lanark, West	11	130 57	110 00	67	.....
Leeds and Grenville, No. 1	3	33 00	30 00	75	.....
Leeds and Grenville, No. 2	48	516 64	480 00	84	1
Leeds and Grenville, No. 3	.....	.....	.....	64	.....
Lennox	.....	.....	.....	82	.....
Lincoln and Pelham Tp	33	541 62	330 00	77	.....
Manitoulin, etc	9	98 98	90 00	62	2
Middlesex, East	13	142 84	130 00	102	.....
Middlesex, West	2	23 54	20 00	81	.....
Muskoka, South and West	9	100 38	90 00	83	1
Norfolk	4	47 81	40 00	82	.....
Northumberland and Durham, No 1.	18	193 97	180 00	63	.....
Northumberland and Durham, No. 2.	5	51 73	50 00	72	1
Northumberland and Durham, No. 3.	5	73 65	50 00	65	.....
Ontario N., and Parry Sound, N. E.	6	107 34	60 00	72	.....
Ontario, South	6	103 73	60 00	64	.....
Oxford, North	10	129 14	100 00	58	.....
Oxford, South	5	56 25	50 00	48	.....
Parry Sound, South	2	35 70	20 00	74	.....
Peel	2	20 10	20 00	74	.....
Perth, North	3	32 11	30 00	68	.....
Perth, South	2	24 45	20 00	44	.....
Peterborough, East	7	73 00	70 00	71	.....
Peterborough, West, and Victoria, E.	12	154 92	130 00	59	.....
Prescott and Russell	7	93 02	70 00	84	.....

RURAL SCHOOL LIBRARIES, OCT. 1st, 1917, TO OCT. 1st, 1918.—Concluded

Inspectorate	No. of schools purchasing books to the amount of $10.00 during the year	Total amount expended by such schools during the year for books recommended	Total Government grant	No. of rural public school libraries in inspectorate	No. of libraries established during year
		$ c.	$ c.		
Prince Edward	19	208 82	190 00	76	2
Rainy River and Thunder Bay E.	.....	.....	.....	25	.....
Renfrew, North	5	77 43	50 00	74	.....
Renfrew, South	5	60 04	50 00	81	.....
Simcoe, East	.....	.....	.....	47	.....
Simcoe, North	7	99 50	70 00	59	.....
Simcoe, South West	1	10 06	10 00	90	.....
Stormont	.....	.....	.....	75	.....
Sudbury, North Nipissing, etc.	11	256 00	110 00	45	3
Timiskaming	8	141 35	80 00	69	2
Victoria, West	6	63 04	60 00	72	.....
Waterloo, North, No. 1	1	10 00	10 00	40	.....
Waterloo, South, No. 2	7	110 89	70 00	42	.....
Welland	11	125 54	110 00	62	.....
Wellington, North	4	49 90	40 00	60	.....
Wellington, South	11	161 90	110 00	68	.....
Wentworth	35	480 41	350 00	64	.....
York, East	6	71 36	60 00	52	.....
York, North	35	372 40	350 00	65	.....
York, West	11	136 90	110 00	42	.....
R. C. Separate Schools:					
Inspector Bennett	26	294 83	194 88	48	.....
" Finn	9	137 15	82 44	13	2
" Gratton	.....	.....	.....	27	.....
" Jones	4	70 91	35 51	17	1
" Lee	36	437 34	285 40	45	.....
" Payment	.....	.....	.....	2	.....
" Sullivan	7	72 67	48 69	18	.....
" Walsh	1	197 00	10 00	6	.....
Totals, 1917-1918	801	10,578 94	7,846 92	5,381	22
Totals, 1916-1917	902	12,491 84	8,360 52	5,292	46
Increase	.....	.....	.....	89	.....
Decreases	101	1,912 90	513 60	.....	24

APPENDIX M

CADET CORPS, 1918

Collegiate Institutes, High, Public and Separate Schools having Cadet Corps with at least twenty members between the ages of 14 and 18 years in the case of Public and Separate Schools, and between 16 and 18 years in other cases.

Collegiate Institutes: Barrie, Brantford, Brockville, Chatham, Clinton, Cobourg, Collingwood, Fort William, Galt, Goderich, Guelph, Hamilton, Ingersoll, Kingston, Kitchener-Waterloo, London, Morrisburg, Napanee, Niagara Falls, North Bay, Orillia, Ottawa, Owen Sound, Perth, Peterborough, Picton, Port Arthur, Renfrew, St. Catharines, St. Mary's, St. Thomas, Sarnia, Seaforth, Smith's Falls, Stratford, Strathroy, Toronto (Harbord, Humberside, Jarvis, Malvern, Oakwood, Parkdale, Riverdale), Vankleek Hill, Windsor, and Woodstock. Total, 46.

High Schools: Alexandria, Athens, Aurora, Belleville, Carleton Place, Cornwall, Dutton, Essex, Harriston, Iroquois, Leamington, Listowel, Lucan, Meaford, Orangeville, Oshawa, Pembroke, Port Hope, Ridgetown, Sault Ste. Marie, Sydenham, Tillsonburg, Toronto (Commerce, North, and Technical), Trenton, Walkerton, Wiarton, Winchester, and Wingham. Total, 30.

Public Schools: Belleville (2), Blenheim, Brantford, Chatham, Dundas, Dunnville, Guelph (2), Hamilton (13), Kingston, London (2), Niagara Falls, North Bay, Orangeville, Ottawa (14), Paris, Peterborough (2), Port Arthur, Port Hope, St. Thomas, Sault Ste. Marie (2), Stratford (2), and Toronto (38). Total, 90.

R. C. Separate Schools: Kingston and Toronto. Total, 2.

Total number of Cadet Corps, 168.

APPENDIX N

SUPERANNUATED TEACHERS

(Ryerson Superannuation Scheme)

Summary for Years 1882-1918

Year	Number of Teachers on List	Expenditure for the Year	Gross Contributions to the Fund	Amount Refunded to Teachers or to the Estates of Teachers
		$ c.	$ c.	$ c.
1882	422	51,000 00	13,501 08	3,660 10
1887	454	58,295 33	1,489 00	3,815 80
1892	456	63,750 00	1,313 50	786 86
1897	424	62,800 33	847 00	620 27
1902	407	64,244 92	1,073 50	722 78
1907	375	63,018 55	766 00	764 54
1912	297	*52,696 90	*504 65	*443 01
1915	274	*51,927 75	*560 35	*219 05
1916	266	*50,909 50	*464 52	*220 12
1917	245	*48,232 00	*353 60	*810 92
1918	221	*48,421 50	*29 00	*816 53

Two teachers' subscriptions were withdrawn from the fund during the year ending 31st October, 1918.

No new names were added to the list of Superannuated Teachers in 1918.

*For fiscal year ending 31st October.

APPENDIX O

FINANCIAL STATEMENT OF THE FACULTIES OF EDUCATION

I.—UNIVERSITY OF TORONTO FACULTY OF EDUCATION

Financial Statement for the Year Ended 30th June, 1918

Receipts

Provincial Grant:		
Received on account thereof during financial year	$6,000 00	
Balance for 1917-18 still due on 30th June	9,000 00	
		$15,000 00
Fees:		
Teachers in training	$6,957 00	
Pupils in University Schools	24,628 00	
		31,585 00
		$46,585 00

Expenditure

1. *Salaries.*

	Payment to Officer.	Superannuation reservations under 7 Geo. V, Cap. 58.
Professors, each 12 mos. to 30th June:		
W. Pakenham, History and Science of Education (also Dean of Faculty), at $4,000.00	$3,876 25	$123 75
H. J. Crawford, Methods in Classics, also Headmaster of Schools, at $3,400.00	3,294 38	105 62
P. Sandiford, Associate Professor, 12 mos. to 30th June, at $3,200.00	3,100 63	99 37
Assistant Professors in Methods, also Chief Instructors, Schools, each 12 mos. to 30th June:		
G. A. Cornish, Science, at $2,700.00	2,616 25	83 75
J. T. Crawford, Mathematics, at $2,700.00	2,616 25	83 75
Lecturers in Methods, also Chief Instructors, Schools, each 12 mos. to 30th June:		
G. M. Jones, English and History, at $2,700.00	2,616 25	83 75
W. C. Ferguson, French and German, at $2,600.00	2,519 38	80 62
F. E. Coombs, Elementary Subjects, at $2,600.00	2,519 38	80 62
S. W. Perry, Art and Commercial Work, at $2,400.00	2,325 63	74 37
Instructors in Faculty and Assistant Instructors, Schools, each 12 mos. to 30th June:		
A. N. Scarrow, Constructive Work and Manual Training, at $2,100.00	2,035 00	65 00
G. N. Bramfitt, Music, at $2,000 (war service, half pay) ..	969 06	30 94
Assistant Instructors, University School:		
T. M. Porter, 12 mos to 30th June, at $2,400.00	2,325 63	74 37
H. A. Grainger, 12 mos. to 30th June, at $2,400.00	2,325 63	74 37
J. A. Irwin, 12 mos. to 30th June, at $2,300.00	2,228 75	71 25
J. O. Carlisle, 12 mos. to 30th June, at $2,200.00	2,131 88	68 12
J. G. Workman, 12 mos. to 30th June, at $2,200.00	2,131 88	68 12
W. J. Dunlop, 12 mos. to 30th June, at $2,100.00	2,035 00	65 00
H. G. Manning, at $2,000.00 (war service, half pay)	967 88	32 12
F. Halbus, substitute for Manning, salary for 10 teaching months at $160 per month	1,548 75	51 25
G. A. Cline, at $2,000.00 (war service, half pay)	967 88	32 12
Substitute for Cline:		
G. A. Ballantyne, 3 mos. to 30th Nov., at $170.00 per mo. (resigned)	497 25	12 75
F. Phillips, 10 days at $5 per day	50 00	.....
J. G. Adams, 6 mos. from 1st January, at $180.00 per mo.	1,053 00	27 00
W. L. C. Richardson, 12 mos. to 30th June, at $2,000.00 ..	1,938 13	61 87

1. *Salaries.*—Continued.

	Payment to Officer.	Superannuation reservations under 7 Geo. V, Cap. 58
H. B. Kilgour, substitute for Bramfitt, salary for 10 teaching months at $150.00 per month	1,462 50	37 50
N. L. Murch, 12 mos. salary (ten payments), at $1,900.00	1,839 00	61 00
D. E. Hamilton, 12 mos. to 30th June, at $1,800.00	1,744 38	55 62
E. L. Daniher, 12 mos. salary (10 payments), at $1,700.00	1,645 50	54 50
W. J. Longheed, 12 mos. salary (10 payments), at $2,400.00	2,340 00	60 00
W. H. Williams, 12 mos. salary (10 payments), at $2,300.00	2,242 50	57 50
Special Instructor in Music (Sessional):		
A. T. Cringan, at $400.00	390 00	10 00
Special Instructors (Sessional):		
Miss L. L. Ockley, Household Science	100 00	.....
Miss I. Sutherland, Household Science	100 00	.....
Miss E. Robertson, Sewing	100 00	.....
Supervisors of Practice-teaching (Sessional):		
J. Jeffries, High Schools	100 00	.....
N. Macdonald, Public Schools	100 00	.....
Miss L. Swinarton, Stenographer in Dean's Office, 12 mos. to 30th June	800 00	.....
Miss G. Cotter, Assistant Clerk, 12 mos. to 30th June	650 00	.....
	$62,304 00	$1,886 00
		62,304 00
		$64,190 00

2. *Education and Building Department.*

(*a*) Maintenance of Building:		
Fuel	$2,395 02	
Light	619 29	
Water	203 04	
Caretaker's supplies	360 50	
Cleaning	1,629 83	
Repairs and renewals	1,072 00	
Engineer and cartaker, S. Hunter, 12 mos. to 30th June	1,200 00	
Firemen at $65.00 per month:		
Chas Fly, 4½ months	292 50	
G. Maltland, 2 months, 4 days	138 66	
S. Green, 1 month, 6½ days	76 91	
Messengers at $4.00 to $6.00 per week	205 88	
		$8,193 63
(*b*) Maintenance of Department:		
Payment to City Board of Education for use of schools, 24 rooms at $150.00 a room	$3,600 00	
Clerical and laboratory assistance	487 32	
Office expenses, printing, postage, class-room supplies and apparatus, and sundries	3,493 26	
		$7,580 58
(*c*) Education Building Annex:		
Alterations	$6,698 63	
Furnishings and equipment	1,775 91	
Maintenance	1,428 19	
		$9,902 73
		$89,866 94

NOTE.—In the above statement no charge has been made upon the Faculty of Education for any portion of the general expenses of University administration, such as Library, Examination, etc.

Certified correct,
F. A. MOURÉ, *Bursar.*

Toronto, 7th January, 1919.

II. UNIVERSITY OF QUEEN'S COLLEGE FACULTY OF EDUCATION

Financial Statement for the Year ending 31st December 1918

Receipts

Surplus from 1917	$42 78
Fees	1,813 00
Ontario Government	6,000 00
Overdraft, 1918	8,319 03
	$16,174 81

Expenditure

Salaries:		
Dean Coleman	$3,600 00	
Prof. W. E. Macpherson	2,941 66	
Willa Atkins	520 00	
Arts Professors	940 00	
Jean McCallum	15 00	
J. Macdonald	20 00	
Alice King	100 00	
Victoria Wiltshire	50 00	
		$8,186 66
Board of Education, as per agreement		$6,725 00
Travelling Expenses:		
Dean Coleman	$140 00	
Geo. Y. Chown	20 00	
D. Whyte	12 00	
		172 00
Presiding Examiners		158 15
Printing and Stationery:		
Hanson & Crozier	$1 60	
Wormwith Co.	43 50	
M. Kirkpatrick	2 15	
Jackson Press	216 10	
R. Uglow & Co.	19 94	
J. A. Stokes	3 20	
Stamps	75 00	
		361 49
Advertising, Queen's University, share		250 00
Library, Miss L. Saunders		150 00
Office Furniture and Equipment:		
United Typewriter Co.	$100 00	
R. J. Lindsay	30 25	
		130 25
Sundries:		
Bell Telephone Co.	$39 00	
Express and telegrams	2 26	
		41 26
		$16,174 81

Audited and found correct,

December 31st, 1918.

R. Easton Burns,
Chartered Accountant.

APPENDIX P

LIST OF INSPECTORATES AND INSPECTORS

Inspectorates	Public School Inspectors	Post Office
Algoma District in part; Cockburn Island; City of Sault Ste. Marie; Towns of Bruce Mines, Steelton, Thessalon	L. A. Green, B.A.	Sault Ste. Marie.
Brant County and Norfolk in part; Town of Paris; Village of Waterford; (Joint Inspectorate)	T. W. Standing, B.A.	Brantford.
Bruce, East; Towns of Chesley, Walkerton, Wiarton; Villages of Hepworth, Lion's Head, Mildmay, Tara	John McCool, M.A.	Walkerton.
Bruce, West; Towns of Kincardine, Southampton; Villages of Lucknow, Paisley, Port Elgin, Teeswater, Tiverton	W. F. Bald, B.A., LL.B.	Port Elgin.
Carleton, East; Town of Eastview	Thos. Jamieson, B.A.	Ottawa, 115 Strathcona Ave.
Carleton, West, and Lanark, East; Towns of Almonte, Carleton Place; Village of Richmond (Joint Inspectorate)	Willis C. Froats, M.A., B.Pæd.	Carleton Place.
Dufferin; Town of Orangeville; Villages of Grand Valley, Shelburne	W. R. Liddy, B.A.	Orangeville.
Dundas; Villages of Chesterville, Iroquois, Morrisburg, Winchester	H. B. Fetterly, M.A.	Winchester.
Elgin, East; Town of Aylmer; Villages of Springfield, Vienna	J. C. Smith, B.A.	St. Thomas.
Elgin, West; City of St. Thomas; Villages of Dutton, Rodney, Port Stanley, West Lorne (Joint Inspectorate)	John A. Taylor, B.A.	St. Thomas.
Essex; Towns of Amherstburg, Essex, Ford, Kingsville, Leamington	D. A. Maxwell, B.A., LL.B., Ph.D.	Windsor.
Frontenac, South; Villages of Garden Island, Portsmouth	S. A. Truscott, M.A.	Kingston.
Frontenac, North; and Addington (Joint Inspectorate)	M. R. Reid, M.A.	Sharbot Lake.
Glengarry; Town of Alexandria; Villages of Lancaster, Maxville	J. W. Crewson, B.A.	Alexandria.
Grey, East; Towns of Meaford, Thornbury; Village of Flesherton	Samuel Huff, B.A.	Meaford.
Grey, West; Town of Owen Sound; Villages of Chatsworth, Shallow Lake	H. H. Burgess, B.A.	Owen Sound.
Grey, South; Towns of Durham, Hanover, Villages of Dundalk, Markdale, Neustadt	Robert Wright, B.A.	Hanover.
Haldimand; Town of Dunnville; Villages of Caledonia, Cayuga, Hagersville, Jarvis	J. L. Mitchener, B.A.	Caledonia.
Haliburton and Muskoka East; Town of Huntsville (Joint Inspectorate)	R. O. White	North Bay.
Halton and Wentworth in part; Towns of Burlington, Milton, Oakville; Villages of Acton, Georgetown (Joint Inspectorate)	James M. Denyes, B.A.	Milton.
Hastings, Centre; Villages of Madoc, Marmora, Stirling, Tweed	J. E. Minns, B.A.	Tweed.
Hastings, South, and City of Belleville; Towns of Deseronto, Trenton (Joint Inspectorate)	H. J. Clarke, B.A.	Belleville.
Hastings, North; South Nipissing, and South-East Parry Sound Districts; Towns of Powassan, Trout Creek; Villages of Bancroft, South River, Sundridge (Joint Inspectorate)	Jas. Colling, B.A.	Bancroft.

List of Inspectorates and Inspectors—Continued

Inspectorates	Public School Inspectors	Post Office
Huron, East; Towns of Clinton, Seaforth, Wingham; Villages of Blyth, Brussels, Wroxeter	John M. Field, B.A., Ph.D.	Goderich.
Huron, West; Town of Goderich; Villages of Bayfield, Exeter, Hensall	J. Elgin Tom	Goderich.
Kenora District, and Thunder Bay (East); City of Fort William; Towns of Dryden, Keewatin, Kenora (Joint Inspectorate)	W. J. Hamilton, B.A.	Fort William.
Kent, East; Towns of Blenheim, Bothwell, Dresden, Ridgetown; Villages of Highgate, Thamesville	Rev. W. H. G. Colles	Chatham.
Kent, West, and City of Chatham; Towns of Tilbury, Wallaceburg, Village of Wheatley (Joint Inspectorate)	J. H. Smith, M.A.	Chatham.
Lambton, East (No. 2); Town of Petrolia; Villages of Alvinston, Arkona, Oil Springs, Watford	N. McDougall, B.A.	Petrolia.
Lambton, West (No. 1); City of Sarnia; Town of Forest; Villages of Courtright, Point Edward, Thedford, Wyoming (Joint Inspectorate)	Henry Conn, B.A.	Sarnia.
Lanark, West; Towns of Perth, Smith's Falls; Village of Lanark (Joint Inspectorate)	F. L. Michell, M.A.	Perth.
Lanark, East (see Carleton, West).		
Leeds and Grenville (No. 1); Town of Gananoque; Villages of Newboro, Westport	James F. McGuire, M.A.	Westport.
Leeds and Grenville (No. 2); Town of Brockville; Village of Athens (Joint Inspectorate)	W. C. Dowsley, M.A.	Brockville.
Leeds and Grenville (No. 3); Town of Prescott; Villages of Cardinal, Kemptville, Merrickville (Joint Inspectorate)	T. A. Craig	Kemptville.
Lennox; Town of Napanee; Villages of Bath, Newburgh (see also Frontenac, N.)	E. J. Corkill, B.A.	Napanee.
Lincoln, and Pelham Tp.; Towns of Niagara, Thorold; Villages of Beamsville, Grimsby, Merritton, Port Dalhousie (Joint Inspectorate)	Geo. A. Carefoot, B.A., B.Pæd.	St. Catharines.
Manitoulin Dist.; Algoma Dist. in part; Sudbury Dist., in part; Towns of Blind River, Gore Bay, Little Current, Massey, Webbwood	James W. Hagan, M.A.	Gore Bay.
Middlesex, East; Village of Lucan	P. J. Thompson, B.A.	London.
Middlesex, West; Towns of Parkhill, Strathroy; Villages of Ailsa Craig, Glencoe, Newbury, Wardsville	H. D. Johnson	Strathroy.
Muskoka, South and West; District; Towns of Bala, Bracebridge, Gravenhurst; Village of Port Carling	H. R. Scovell, B.A.	Bracebridge.
Muskoka, East (see Haliburton).		
Nipissing, North (see Sudbury Dist.).		
Nipissing, South (see Hastings, North).		
Norfolk; Town of Simcoe; Villages of Delhi, Port Dover, Port Rowan (see Brant Co.)	H. Frank Cook, B.A.	Simcoe.
Northumberland and Durham, West, No. 1; Towns of Bowmanville, Port Hope; Village of Newcastle	W. E. Tilley, M.A., Ph.D.	Bowmanville.

List of Inspectorates and Inspectors—Continued

Inspectorates	Public School Inspectors	Post Office
Northumberland and Durham, Centre, No. 2; Town of Cobourg; Village of Millbrook	John W. Odell, B.A.	Cobourg.
Northumberland and Durham, East, No. 3; Town of Campbellford; Villages of Brighton, Colborne, Hastings	Robert Boyes	Campbellford.
Ontario, North; North-East Parry Sound; Town of Uxbridge; Villages of Beaverton, Cannington (Joint Inspectorate)	T. R. Ferguson, M.A.	Uxbridge.
Ontario, South; Towns of Oshawa, Whitby; Village of Port Perry	R. A. Hutchison, B.A.	Whitby.
Oxford, North, and City of Woodstock; Villages of Embro, Tavistock (Joint Inspectorate)	J. M. Cole	Woodstock.
Oxford, South; Towns of Ingersoll, Tillsonburg; Village of Norwich (Joint Inspectorate)	R. A. Paterson, B.A.	Ingersoll.
Parry Sound, South, District; Towns of Kearney, Parry Sound; Village of Burk's Falls	J. L. Moore, B.A.	Parry Sound.
Parry Sound, South-East (see Hastings, North).		
Parry Sound, North-West (see Sudbury).		
Parry Sound, North-East (see Ontario, North).		
Peel; Town of Brampton; Villages of Bolton, Port Credit, Streetsville	W. J. Galbraith, M.A.	Brampton.
Perth, North; Towns of Listowel, Mitchell, St. Mary's; Village of Milverton	William Irwin, B.A.	Stratford.
Perth, South, and City of Stratford (Joint Inspectorate)	James H. Smith, B.A.	Stratford.
Peterborough, East; Villages of Havelock, Lakefield, Norwood	Richard Lees, M.A.	Peterborough.
Peterborough, West, and Victoria, East; Town of Lindsay; Villages of Bobcaygeon, Omemee (Joint Inspectorate)	G. E. Broderick	Lindsay.
Prescott and Russell; Towns of Hawkesbury, Rockland, Vankleek Hill; Villages of Casselman, L'Orignal	John Nelson, B.A.	Vankleek Hill.
Prince Edward; Town of Picton; Villages of Bloomfield, Wellington	John E. Benson, M.A.	Picton.
Rainy River District, Thunder Bay (in part); Towns of Fort Frances, Rainy River, Sioux Lookout (Joint Inspectorate)	C. McDowell, B.A.	Fort Willlam.
Renfrew, North; Town of Pembroke; Village of Cobden	I. D. Breuls, B.A.	Pembroke.
Renfrew, South; Towns of Arnprior, Renfrew; Villages of Eganville, Killaloe Station	G. G. McNab, M.A.	Renfrew.
Simcoe, North; Towns of Barrie, Collingwood, Penetanguishene	Joseph L. Garvin, B.A.	Barrie.
Simcoe, South; Towns of Alliston, Stayner; Villages of Beeton, Bradford, Creemore, Tottenham	Edwin Longman	Barrie.
Simcoe, East; Towns of Midland, Orillia; Villages of Coldwater, Port McNicoll, Victoria Harbour	Isaac Day, B.A.	Orillia.
Stormont; Town of Cornwall; Village of Finch	James Froats, M.A.	Cornwall.
Sudbury District (in part), North Nipissing and North-West Parry Sound; Towns of Bonfield, Cache Bay, Chelmsford, Copper Cliff, Frood Mine, Mattawa, North Bay, Sturgeon Falls, Sudbury	D. M. Christie, B.A.	Sudbury.

List of Inspectorates and Inspectors—Continued

Inspectorates	Public School Inspectors	Post Office
Thunder Bay, West; City of Port Arthur (Joint Inspectorate)	John Ritchie	Port Arthur.
Timiskaming District; Towns of Charlton, Cobalt, Cochrane, Englehart, Haileybury, Iroquois Falls, Latchford Matheson, New Liskeard, Timmins; Village of Thornloe	John A. Bannister, B.A.	New Liskeard.
Victoria, West; Villages of Fenelon Falls, Sturgeon Point, Woodville	W. H. Stevens, B.A.	Lindsay.
Victoria, East (see Peterborough, West).		
Waterloo, N. (No. 1); City of Kitchener; Town of Waterloo; Village of Elmira (Joint Inspectorate)	F. W. Sheppard	Kitchener.
Waterloo, S. (No. 2); City of Galt; Towns of Hespeler, Preston; Villages of Ayr, New Hamburg (Joint Inspectorate)	Lambert Norman, B.A.	Galt.
Welland; City of Welland; Towns of Bridgeburg, Port Colborne; Villages of Chippawa, Fort Erie, Humberstone. (Thorold Town and Pelham Tp. are under Lincoln Inspector.) (Joint Inspectorate)	John W. Marshall, B.A.	Welland.
Wellington, North; Towns of Harriston, Mount Forest, Palmerston; Village of Clifford	Robert Galbraith, B.A.	Mount Forest.
Wellington, South; Villages of Arthur, Drayton, Elora, Erin, Fergus	J. J. Craig, B.A.	Fergus.
Wentworth; Town of Dundas; Village of Waterdown	J. B. Robinson, B.A., B.Pæd.	Hamilton.
York, North; Towns of Aurora, Newmarket; Villages of Holland Landing Sutton West	C. W. Mulloy, B.A.	Aurora.
York, West; Towns of Mimico, Weston; Villages of New Toronto, Woodbridge	A. L. Campbell, M.A.	Weston.
York, East; Town of Leaside; Villages of Markham, Richmond Hill, Stouffville	A. A. Jordan, B.A.	Toronto, 63 Orchard View Bd.
Brantford, City of	E. E. C. Kilmer, B.A.	Brantford.
Guelph, do	Wm. Tytler, B.A.	Guelph.
Hamilton, do	W. H. Ballard, M.A.	Hamilton.
do do	Jas. Gill, B.A., B.Pæd.	Hamilton.
Kingston, do	J. Russell Stuart	Kingston.
London, do	C. B. Edwards, B.A.	London.
Niagara Falls, do and St. Catharines	D. C. Hetherington	St. Catharines.
Ottawa, do	J. H. Putman, B.A., D.Pæd.	Ottawa.
do do	E. T. Slemon, B.A., D.Pæd.	Ottawa.
Peterborough, do	A. Mowat, B.A.	Peterborough.
Toronto, do	R. H. Cowley, M.A., Cf. Insp.	Toronto.
do do	W. H. Elliott, B.A.	Toronto.
do do	Jos. W. Rogers, M.A.	Toronto.
do do	G. H. Armstrong, M.A., B.Pæd.	Toronto.
do do	Henry Ward, B.A.	Toronto.
do do	D. D. Moshier, B.A., B.Pæd.	Toronto.
do do	N. S. MacDonald, B.A., D.Pæd.	Toronto.
do do	Walter Bryce, B.A.	Toronto.
Windsor, do and Towns of Sandwich and Walkerville	Robt. Meade, M.A.	Windsor.

List of Inspectorates and Inspectors—Concluded

R.C. Separate School Inspectors

J. F. Power, M.A. ..... Toronto, 33 Dalton R.
J. F. Sullivan, B.A. ..... London, 873 Helmuth Ave.
Jas. E. Jones, B.A. ..... Ottawa, 104 Henderson St.
J. P. Finn, B.A. ..... North Bay.
W. J. Lee, B.A. ..... Toronto, 434 Brunswick Ave.
J. M. Bennett, B.A. ..... Toronto, 694 Euclid Ave.

English-French Public and Separate School Inspectors

L. O. E. Payment, M.A. ..... Ottawa, 12 Tormey St.
Thomas Swift ..... Ottawa, 320 Cooper St.
J. S. Gratton ..... Toronto, 77 McGill St.
Jno. C. Walsh, B.A. ..... Rockland.

Chief Inspectors of Public and Separate Schools

John Waugh, M.A., D.Pæd., Chief Insp.. Toronto, Parliament Buildings.
W. I. Chisholm, M.A., Asst. Chief Insp.. Toronto, Parliament Buildings.

Director of Industrial and Technical Education and Inspector of Normal Schools

F. W. Merchant, M.A., D.Pæd. ..... Toronto, Parliament Buildings.

High School Inspectors

J. A. Houston, M.A. ..... Toronto, 105 Roxborough St. West.
I. M. Levan, B.A. ..... Toronto, 144 Balmoral Ave.
G. F. Rogers, B.A. ..... Toronto, 44 Roxborough St. West.

Continuation School Inspectors

G. K. Mills, B.A. ..... Toronto, Parliament Buildings.
J. P. Hoag, B.A. ..... Toronto, Parliament Buildings.

Manual Training and Household Science Inspector

Albert H. Leake... ..... Toronto, 116 Spencer Ave.

Inspector of Elementary Agricultural Education

J. B. Dandeno, B.A., Ph.D. ..... Toronto, 13 Hazelton Ave.

February 15th, 1919.

APPENDIX Q

JUNIOR HIGH SCHOOL ENTRANCE EXAMINATION, 1918

Collegiate Institutes	Number granted certificates on Principal's recommendation	Number taking Departmental Examination	Number passed Departmental Examination
Barrie	.....	85	71
Brantford	7	228	178
Brockville	.....	143	110
Chatham	70	67	38
Clinton	.....	52	43
Cobourg	.....	85	74
Collingwood	.....	75	59
Fort William	.....	142	130
Galt	.....	186	180
Goderich	.....	64	54
Guelph	.....	143	125
Hamilton	362	99	57
Ingersoll	.....	80	61
Kingston	.....	238	200
Kitchener-Waterloo	.....	199	191
Lindsay	.....	87	66
London	315	254	196
Morrisburg	.....	46	33
Napanee	.....	55	43
Niagara Falls	.....	105	90
North Bay	.....	119	90
Orillia	.....	112	103
Ottawa	324	468	314
Owen Sound	.....	162	141
Perth	.....	95	79
Peterborough	113	96	70
Picton	.....	46	43
Port Arthur	.....	135	120
Renfrew	.....	115	90
St. Catharines	.....	156	121
St. Mary's	.....	75	60
St. Thomas	.....	151	127
Sarnia	.....	156	141
Seaforth	.....	57	51
Smith's Falls	.....	96	72
Stratford	.....	189	161
Strathroy	.....	54	47
Toronto, Harbord St.	.....	101	60
Toronto, Parkdale	.....	65	19
Toronto, Jarvis	.....	60	40
Toronto, Humberside	.....	66	45
Toronto, Malvern Ave.	.....	61	36
Toronto, Oakwood	.....	67	44
Toronto, Riverdale	.....	105	56
Toronto	2,195	.....	.....
Vankleek Hill	.....	63	45
Windsor	.....	242	235
Woodstock	.....	136	110
Totals	3,386	5,681	4,519
High Schools			
Alexandria	.....	75	54
Alliston	.....	27	19
Almonte	.....	50	38
Amherstburg	.....	47	41
Arnprior	.....	77	65
Arthur	.....	34	28
Athens	.....	37	23
Aurora	.....	47	41
Avonmore	.....	15	12
Aylmer	.....	76	50
Beamsville	.....	20	16
Belleville	73	31	23
Bowmanville	.....	58	47
Bradford	.....	13	12
Brampton	.....	43	36
Brighton	.....	31	22
Caledonia	.....	42	30
Campbellford	.....	41	32
Carleton Place	27	54	20
Cayuga	.....	31	15
Chatsworth	.....	17	14
Chesley	.....	55	46
Chesterville	.....	57	35
Colborne	.....	28	18
Cornwall	.....	109	101
Deseronto	.....	26	22
Dundalk	.....	22	19
Dundas	.....	57	49
Dunnville	.....	49	33
Durham	.....	46	28
Dutton	.....	45	36
Elora	.....	34	29
Essex	.....	57	51
Fergus	.....	51	40
Flesherton	.....	10	8
Forest	.....	44	18
Gananoque	.....	52	36
Georgetown	.....	37	33
Glencoe	.....	43	24
Gravenhurst	.....	35	28
Grimsby	.....	31	25
Hagersville	.....	31	23
Haileybury	.....	53	33
Harriston	.....	29	24
Hawkesbury	.....	44	34
Iroquois	.....	31	24
Kemptville	.....	41	33
Kenora	.....	58	54
Kincardine	.....	51	30
Leamington	.....	83	60
Listowel	.....	41	36
Lucan	.....	50	30
Madoc	.....	44	34
Markdale	.....	19	15
Markham	.....	36	30
Meaford	.....	61	48
Midland	.....	68	54
Mitchell	.....	46	37
Morewood	.....	20	12
Mount Forest	.....	43	29

JUNIOR HIGH SCHOOL ENTRANCE EXAMINATION, 1918.—Continued

High Schools.—Con.	Number granted certificates on Principal's recommendation	Number taking Departmental Examination	Number passed Departmental Examination
Newburgh	.....	37	25
Newcastle	.....	12	7
Newmarket	.....	52	44
Niagara	.....	15	11
Niagara Falls South	.....	58	46
Norwood	.....	36	27
Oakville	.....	42	32
Omemee	.....	28	22
Orangeville	.....	21	19
Oshawa	.....	115	96
Paris	.....	46	39
Parkhill	.....	41	25
Parry Sound	.....	53	43
Pembroke	.....	95	76
Penetanguishene	.....	57	32
Petrolia	.....	59	52
Plantagenet	.....	22	14
Port Dover	.....	36	22
Port Elgin	.....	32	23
Port Hope	.....	63	60
Port Perry	.....	29	25
Port Rowan	.....	20	16
Prescott	.....	46	27
Richmond Hill	.....	41	36
Ridgetown	.....	40	30
Rockland	.....	23	23
Sault Ste. Marie	.....	148	120
Shelburne	.....	21	12
Simcoe	.....	68	64
Smithville	.....	22	16
Stirling	.....	38	37
Streetsville	.....	21	21
Sudbury	.....	73	62
Sydenham	.....	29	21
Thorold	.....	25	21
Tillsonburg	.....	69	52
Toronto, North	.....	7	3
Trenton	47	18	10
Tweed	.....	68	54
Uxbridge	.....	51	37
Vienna	.....	22	12
Walkerton	.....	42	39
Wallaceburg	.....	86	69
Wardsville	.....	10	9
Waterdown	.....	35	29
Waterford	.....	38	31
Watford	.....	36	26
Welland	.....	74	60
Weston	.....	126	77
Whitby	.....	48	30
Wiarton	.....	33	26
Williamstown	.....	27	25
Winchester	.....	68	51
Wingham	.....	54	49
Totals	147	5,079	3,892

Other Places.	Number granted certificates on Principal's recommendation	Number taking Departmental Examination	Number passed Departmental Examination
Aberfoyle	.....	17	14
Acton	.....	39	31
Agincourt	.....	36	33
Alvinston	.....	36	28
Ameliasburg	.....	18	14
Ancaster	.....	11	10
Angus	.....	17	12
Apsley	.....	3	.....
Arkona	.....	4	3
Ashton	.....	10	10
Aultsville	.....	29	11
Ayr	.....	17	15
Ayton	.....	21	20
Bailieboro'	.....	6	6
Bancroft	.....	21	16
Barriefield	.....	21	17
Bath	.....	22	13
Battersea	.....	14	6
Bayfield	.....	12	10
Beachburg	.....	32	20
Beaverton	.....	38	35
Beeton	.....	7	6
Belleville, Co. Centre	28	51	11
Belle River	.....	19	7
Belmont	.....	10	8
Bethany	.....	17	14
Billings' Bridge	.....	24	19
Binbrook	.....	9	7
Bisco	.....	4	2
Blackstock	.....	16	12
Blenheim	.....	48	31
Blind River	.....	19	8
Bloomfield	.....	12	10
Blyth	.....	20	18
Bobcaygeon	.....	27	22
Bolton	.....	20	15
Bothwell	.....	22	13
Bowesville	.....	12	7
Bracebridge	.....	95	72
Bridgeburg	.....	28	26
Brigden	.....	17	8
Bruce Mines	.....	24	15
Brussels	.....	34	29
Burford	.....	21	13
Burgessville	.....	12	7
Burk's Falls	.....	40	25
Burlington	.....	20	18
Burridge	.....	2	1
Burritt's Rapids	.....	1	.....
Caistor Centre	.....	6	5
Cannington	.....	30	21
Cardinal	.....	26	16
Cargill	.....	16	13
Carp	.....	14	14
Castleton	.....	8	7
Cataraqui	.....	24	11
Chapleau	.....	21	12

JUNIOR HIGH SCHOOL ENTRANCE EXAMINATION, 1918—Continued

Other Places—Con.	Number granted certificates on Principal's recommendation	Number taking Departmental Examination	Number passed Departmental Examination
Charleston		16	8
Chester		45	42
Claremont		16	12
Clifford		9	7
Cobalt		38	26
Cobden		44	20
Coboconk		8	7
Cochrane		9	7
Coldwater		13	11
Comber		20	12
Cookstown		19	14
Copper Cliff		30	23
Courtright		14	4
Crediton		21	12
Creemore		15	12
Creighton Mine		11	10
Crosshill		19	16
Cultus		8	7
Cumberland		10	6
Dalkeith		13	8
Dashwood		13	7
Delhi		31	25
Delta		50	29
Demorestville		7	2
Denbigh		5	2
Desbarats		10	3
Dickinson's Landing		14	11
Dixon's Corners		29	19
Dorchester Station		50	38
Douglas		13	12
Drayton		30	17
Dresden		34	25
Dromore		6	3
Drumbo		8	6
Dryden		20	17
Dungannon		24	14
Eastview		21	17
Easton's Corners		12	7
Echo Bay		2	1
Echo Place		39	33
Edgar		7	5
Eganville		61	44
Elmira		46	35
Elmvale		32	18
Embro		16	14
Embrun		8	7
Emo		22	11
Englehart		18	9
Ennismore		17	11
Erin		29	24
Exeter		39	26
Fenelon Falls		36	20
Fenwick		5	5
Feversham		21	12
Fingal		35	12
Florence		19	10
Fonthill		10	10
Fordwich		17	13
Fort Frances		36	25
Fournier		14	12
Frankford	6		
Galetta		8	8
Glen Allan		9	8
Gore Bay		33	17
Grand Valley		10	10
Haliburton		4	4
Hall's Bridge		3	2
Hamilton, Co. Centre		43	35
Hanover		34	33
Harrington		9	7
Harrow		21	15
Harrowsmith		10	5
Hastings		10	7
Havelock		26	10
Hawkestone		24	12
Hensall		23	16
Hepworth		10	8
Highgate		22	12
Hillsdale		12	5
Horning's Mills		11	8
Huntsville		54	37
Innerkip		12	9
Iroquois Falls		3	3
Ivy		11	9
Janetville		3	3
Jarvis		22	13
Jasper		22	16
Jockvale		13	11
Kars		8	7
Keene		24	10
Keewatin		9	8
Kenmore		10	8
Killarney		6	5
Kilmaurs		12	9
Kimberley		10	7
Kinburn		7	2
King		10	10
Kingsville		40	34
Kinmount		11	7
Kintail		14	10
Kirkfield		39	20
Kleinburg		4	2
Lakefield		52	41
Lanark		57	40
Lancaster		22	21
Lansdowne		27	14
Laurel		4	4
Lefroy		23	14
Lemonville		12	10
Lion's Head		12	9
Little Britain		34	26
Little Current		20	15
London East		131	88
Loring		6	4
Lucknow		18	17
Macdonald Consolidated, Guelph		20	16
Madawaska		8	6

JUNIOR HIGH SCHOOL ENTRANCE EXAMINATION, 1918—Continued

Other Places—Con.	Number granted certificates on Principal's recommendation	Number taking Departmental Examination	Number passed Departmental Examination
Magnetawan		11	10
Magpie Mine		2	2
Manitowaning		21	11
Manoitick		19	15
Maple		14	13
Marlborough		10	6
Marmora		44	27
Marshville		18	12
Marsville		5	5
Massey		26	20
Matheson		8	3
Mattawa		22	11
Maxville		21	13
Medina		13	4
Melbourne		20	15
Merivale		13	12
Merlin		23	19
Merrickville		20	19
Merritton		26	20
Metcalfe		10	6
Mildmay		22	21
Milford		20	15
Millbrook		24	20
Milton		48	41
Milverton		54	37
Mimico		33	28
Minden		18	14
Minesing		6	6
Monklands		9	6
Moorefield		4	4
Moose Creek		11	8
Mount Albert		13	10
Mount Brydges		15	12
Mount Hope		6	4
Mount Pleasant		22	13
Mount St. Patrick		16	9
Mountain Grove		11	4
Mountain Station		14	10
Navan		11	9
Neustadt		9	9
Newboro		13	6
New Hamburg		15	12
Newington		12	12
New Liskeard		54	31
New Toronto		11	9
North Augusta		11	5
North Gower		7	4
North Lancaster		16	16
Norwich		35	24
Oakwood		15	12
Odessa		13	7
Oil Springs		34	25
Orono		20	15
Ohsweken		11	4
Otterville		18	15
Paisley		29	24
Pakenham		1	
Palmerston		26	22
Pefferlaw		11	9

Other Places—Con.	Number granted certificates on Principal's recommendation	Number taking Departmental Examination	Number passed Departmental Examination
Pelee Island		15	6
Pickering		18	9
Plattsville		17	12
Port Burwell		8	7
Port Carling		18	13
Port Colborne		65	48
Port Credit		32	28
Port Dalhousie		27	18
Port Stanley		9	3
Powassan		34	22
Priceville		6	4
Princeton		7	3
Queensville		17	9
Rainy River		15	11
Randwick		3	2
Richard's Landing		12	6
Richmond		16	14
Ridgeway		20	13
Ripley		30	18
Rockton		14	4
Rockwood		35	28
Rodney		31	18
Rosemont		8	3
Roseneath		11	8
Russell		18	12
St. David's		20	10
St. George		22	21
Sandwich		37	29
Schomberg		21	11
Schreiber		18	14
Scotland		11	9
Selkirk		26	17
Sharbot Lake		9	4
Singhampton		5	4
Sioux Lookout		7	1
Solina		13	12
Southampton		21	15
South Finch		35	27
South Indian		12	6
South Mountain		32	18
South Porcupine		18	10
South River		19	12
Sparta		18	8
Spencerville		17	10
Springfield		18	11
Stayner		26	20
Stevensville		13	11
Steelton		25	23
Stittsville		19	12
Stony Creek		20	15
Stouffville		21	18
Strabane		15	12
Sturgeon Falls		62	37
Sunderland		20	17
Sutton		26	23
Tamworth		25	18
Tara		44	35
Tavistock		15	10
Teeswater		34	23

JUNIOR HIGH SCHOOL ENTRANCE EXAMINATION, 1918—Concluded

Other Places—Con.	Number granted certificates on Principal's recommendation	Number taking Departmental Examination	Number passed Departmental Examination
Thamesford		25	18
Thamesville		38	19
Thedford		18	17
Thessalon		42	29
Thornbury		31	24
Thorndale		23	11
Tilbury		32	22
Timmins		19	10
Tiverton		13	7
Toronto. De La Salle Institute		103	59
Tottenham		20	15
Uptergrove		23	13
Varna		14	11
Verona		17	12
Victoria Harbour		20	8
Vineland		26	10
Warkworth		23	21
Waubaushene		7	7
Webbwood		19	9
Wellandport		13	5
Wellington		31	28
Westboro'		44	37
West Lorne		21	12
Westport		34	18
Wheatley		18	15
White River		3	2
Whitevale		12	10
Wilberforce		8	4
Wilkesport		13	5
Williamsburg		16	6
Willowdale		24	22
Winona		8	8
Wolfe Island		20	9
Woodbridge		21	16
Woodville		26	20
Wooler		19	11
Worthington		15	10
Wroxeter		26	19
Wyoming		35	22
Yarmouth Heights		22	15
Zephyr		4	3
Zurich		15	11
Totals	34	6,851	4,756
Collegiate Institutes	3,386	5,681	4,519
High Schools	147	5,079	3,892
Other Places	34	6,851	4,756
Grand Totals, 1918	3,567	17,611	13,167

Number Obtaining Junior High School Entrance Standing under Farm Employment Regulations, 1918

Inspectorate	No. of Certs.
Algoma	37
Brant	67
Brantford	7
Bruce, East	46
Bruce, West	63
Carleton, County	115
Dufferin	65
Dundas	30
Elgin, East	51
Elgin, West	25
Essex	88
Frontenac	13
Frontenac, South	35
Glengarry	8
Grey, East	47
Grey, South	67
Grey, West	67
Haldimand	86
Halton and Wentworth	80
Hamilton City	20
Hastings, Centre	2
Hastings, N., S. Nipissing and S. E. Parry Sound	20
Hastings, South	50
Huron, East	81
Huron, West	67
Kent, East	76
Kent, West	63
Kingston	20
Lambton, East	56
Lambton, West	42
Lanark, West	11
Leeds and Gren., I.	14
Leeds and Gren., II.	33
Lennox	36
Lincoln and Pelham	100
London City	12
Manitoulin	28
Middlesex, East	56
Middlesex, West	108
Muskoka	2
Niagara Falls and St. Catharines	16
Norfolk	35
Northumber'd & D.,C., II.	45
Northumber'd &D., E., III.	53
Northuml'd & D., W., I.	39
Ontario, North	19
Ontario, South	26
Oxford, North	57
Oxford, South	39
Parry Sound, South	7
Peel	80
Perth, North	109
Perth, South	92
Peterborough City	12
Peterborough, East	25
Prescott and Russell	100
Rainy River Dist.	16
Renfrew, North	66
Renfrew, South	31
Simcoe, North	46
Simcoe, South	79
Stormont	55
Sudbury	4
Timiskaming	18
Toronto City	34
Victoria West	24
Waterloo, North	18
Waterloo, South	31
Welland	12
Wellington, North	66
Wellington, South	46
Wentworth	125
Windsor City	3
York, North	15
York, West	29
Total	3,366

APPENDIX R

JUNIOR PUBLIC SCHOOL GRADUATION DIPLOMA EXAMINATION, 1918

Centre	Examined	Passed	High School Entrance allowed	Centre	Examined	Passed	High School Entrance allowed
Ancaster	3	3		Milverton	6	5	
Angus	1			Mimico	18	18	
Aurora	6	6		Navan	5	2	1
Bayfield	5	2		North Bay	2	1	
Beachburg	2	2		Oil Springs	5	2	
Bolton	7	6		Ottawa	98	55	21
Bracebridge	4	2		Parry Sound	4	4	
Brigden	10	8		Picton	1	1	
Burford	3	3		Port Credit	10	8	
Burk's Falls	7	2	1	Powassan	4	3	
Byng Inlet	6	1		Renfrew	5	3	1
Collingwood	2	1		Richard's Landing	1		
Courtright	5	2		Rodney	2		
Cumberland	5	3		Schreiber	9	9	
Dashwood	4	1		Selkirk	4	1	
Dutton	4	4		Sparta	2	1	
Echo Bay	5	5		Stony Creek	4	4	
Emo	3	3		Strabane	3	3	
Exeter	3	2		Sunderland	4	3	
Fingal	2	2		Thamesville	3	2	
Florence	3	1	1	Tiverton	5	4	1
Fordwich	3	2		Varna	4	1	
Fort Frances	1	1		Victoria Harbour	7	4	3
Fournier	3		2	Vineland	4	3	
Goderich	2	2		Woodbridge	4	3	
Hensall	6	3		Woodstock	2	2	
Hillsdale	6		2	Wooler	3	3	
Kingsville	3	2		Worthington	1	1	
Kinmount	5	4		Wroxeter	7	5	
Kintail	3	2		Zephyr	2	2	
Kirkfield	2	2		Zurich	10	5	
Loring	2	2					
Marmora	5	5		Totals	372	242	35
Massey	2		2				

Junior Public School Graduation Diplomas Obtained by Farm Employment, 1918

Inspectorate	No. of Diplomas	Inspectorate	No. of Diplomas	Inspectorate	No. of Diplomas
Algoma	3	Kent, West	2	Peel	4
Brant	3	Lambton, East	1	Perth, North	3
Bruce, West	1	Lincoln	3	Prescott and Russell	4
Elgin, East	2	Muskoka	4	Wentworth	5
Hastings, North	5	Ontario North	4	York, North	1
Hastings, South	1	Ottawa	2	York, West	3
Huron, East	6	Oxford, North	1		
Huron, West	6	Oxford, South	2	Total	72
Kent, East	3	Parry Sound, South	3		

APPENDIX S

LIST OF CERTIFICATES ISSUED BY THE DEPARTMENT OF EDUCATION, 1918

I. High School Principals' Certificates

Adamson, Wilson H., M.A. (Math.)
Affleck, Archibald A., B.A. (Classics.)
Anderson, John A., B.A.
Brackenbury, George L., B.A.
Butcher, Cecil W., B.A.
Caldwell, Alexander, B.A.
Cameron, James M., B.A.
Cowan, Margaret T., B.A. (Classics.)
Cumming, Eva M., B.A.
Curtis, Jeremiah T., B.A.
Davidson, Edith M., B.A.
Davies, Norman, B.A. (Science).
Fletcher, Beatrice L. R., B.A. (Classics.)
Gilfillan, Viola, M.A.
Green, Walter H. H., B.A. (Science.)
Hitsman, Samuel A., B.A.
Hood, Finlay, B.A.
Ionson, Margaret A., B.A.
Irving, Jessie C., B.A. (Math. & Phys.)
Jewitt, Olver V., B.A. (Math. & Phys.)
Keenan, Edward J., B.A.
Kinnear, Jennie A., B.A. (Math.)
Knight, Carrie M., M.A. (Classics, Eng. & Hist.)
Lawrence, Charles F., B.A.
Lewis, Nora, B.A. (Classics).
McCormack, Mary I., B.A.
McNeely, Priscilla V. M., M.A. (Science.)
McNeil, William G., B.A. (Eng & Hist.)
Medcof, James L., B.A. (Science.)
Nugent, Eleanor, B.A. (Fr. & Ger.)
Philp, James H., B.A.
Young, Ralph H., B.A.

II. High School Assistants and Specialists

Adams, Ada.
Aitchison, Belle. (Art.)
Allen, Eula P.
Allin, Arthur E., M.A. (Art.)
Anderson, John A., B.A.
Appelbe, Louise A., B.A.
Arnold, Leita E., B.A.
Austin, Prudence M. (Art.)
Baird, Jean F., M.A.
Barlow, Frederick J., B.A. (Art.)
Beaman, Elsie K. (Phys. Cult.)
Beckwith, Mrs. Lizzie A.
Bell, John M.
Bottoms, Emma M. (Art.)
Broad, Luella L., B.A.
Brown, Annie E.
Burns, Grace, B.A. (Art.)
Burriss, Mae N., B.A. (Phys. Cult.)
Butcher, Frank H., B.A. (Classics.)
Byram, Kathleen A., B.A. (Mods. & Hist.) (Art.)
Caldwell, Alexander, B.A. (Commercial.)
Cameron, James. (Phys. Cult.)
Cameron, Murray, B.A.
Campbell, Minnie M. (Art.)
Campbell, (Mrs.) Ruby C., B.A.
Campbell, William A., B.A. (Phys. Cult.)
Challen, Newton E., B.A. (Phys. Cult.)
Clayton, Vivian E., B.A. (Art.)
Clement, Jessie M., B.A.
Coleman, (Mrs.) Jessie D.
Cordingley, Margaret L., B.A.
Corkery, Florence, M.A. (Art.)
Coughlan, Anna T., B.A.
Cowan, Ida K., B.A. (Art.)
Cruickshank, Libbie. (Com.)
Cruikshank, Gertrude, B.A.
Cryderman, May, B.A. (Eng. & Hist.)
Cunningham, Evangeline, B.A. (Phys. Cult.)
Danard, Charles H., B.A.
Davidson, Georgia, B.A.
DeFoe, Eugénie M., B.A. (Phys. Cult.)
Delmage, Emelyn E., B.A. (Art.)
Dewar, Nora, B.A. (Classics.)
Dickson, Marion C.
Dobson, Viola J., B.A.
Doherty, Mabel O. (Phys. Cult.)
Douglas, Gordon A. (Phys. Cult.)
Downey, William H.
Duncan, Muriel, B.A.
Dunnett, Alfred H., B.A. (Phys. Cult.)
Durie, Helen F., M.A. (Phys. Cult.)
Eadie, William M., B.A.
Elcoat, Hazel I. (Art.) (Commercial.)
Elliott, Frederick V., B.A.
Erb, Maurice, B.A. (Eng. & Hist.)
Erwin, Willis M., B.A.
Farmer, Bessie S., B.A. (Phys. Cult.)
Fenn, Lloy E., B.A.
Fletcher, Douglas R.
Fothergill, Ethel L.
Fraser, Bertha F., B.A.
Fraser, Christine M., B.A.
Gabriel, Mary.
Gardiner, M. Mae, B.A.
Gilchrist, John, B.A.
Going, Ambia L., B.A. (Art.)
Goring, Ralph B., B.A. (Phys. Cult.)

II. High School Assistants and Specialists.—Con.

Graham, Hugh H., B.A. (Science.)
Graham, Samuel J, B.A.
Graham, Thomas S. H., M.A. (Math. & Phys.)
Greig, Earl H., B.A.
Grills, Margaret. (Art.)
Hall, Grace, B.A.
Halpenny, Milton D.
Hamilton, Agnes I. (Art.)
Hardy, John H., B.A. (Classics.)
Harrington, Marjorie L., B.A.
Harris, Una M.
Harvey, Martha A., B.A. (Phys. Cult.)
Hay, Hazel F., B.A.
Helson, Margaret J., M.A. (Mods. & Hist.)
Henderson, Orville J.
Hicks, Eleanor M.
Hodgins, Ethelberta. (Art.)
Horan, J. Cecilia.
Horton, Charles W., B.A. (Art.)
Howson, Alexandra A., B.A. (Phys. Cult.)
Hubbs, Maude, B.A.
Hume, Annie I., B.A.
Husband, Edith P., B.A.
Irving, Maude G. N., B.A.
Jardine, Amy M.
Johnson, Alfred, B.A.
Jones, Gwendolyn B.
Judge, Albert E., B.A.
Kennedy, Jessie, B.A.
Kenny, Vera B., B.A. (Art.)
Kenyon, Isabel.
Kerr, (Mrs.) Winnabel E., B.A. (Art.)
King, Eva W., B.A. (Phys. Cult.)
Kinnee, Herbert C., B.A. (Math. & Phys.)
Kirk, Gladys R. (Art.)
Lailey, Marion B., B.A. (Phys. Cult.)
Lamont, Alexander D., B.A.
Lee, Gertrude M.
Lee, Sadie, B.A.
Lockett, Horace G., M.A. (Classics.)
Maitland, Jessie H., B.A.
Maitland, Marion.
Martin, Jean E., B.A. (Math. & Phys.)
Martyn, Tena. (Art.)
Might, Lincoln, M.A. (Art.)
Mills, Jennie.
Money, Mabel L. K.
Montgomery, Mayme I., B.A. (Fr. & Ger.) (Art.)
Morgan, Susan P. (Commercial.)
Mowat, John H., B.A.
Mullette, Fernia H.
Munro, Margaret K., B.A. (Math.)
MacGregor, Mrs. Jeanette E. (Art.)
MacLeod, Emma B., B.A.
McCallum, Mary, B.A. (Eng. & Hist.)
McKnight, Mary G., B.A.
McLellan, Mary A., B.A. (Math. & Phys.)
McNab, Alberta, B.A.
McTurk, Isabel, B.A.
McVean, Kathleen P., B.A.
Nelson, Eva E., B.A.
Newton, Amy A., B.A.
Nichol, Winifred S., M.A. (Phys. Cult.)
Norton, M. Maud. (Art.)
O'Connell, Marguerite E., B.A. (Phys. Cult.)
Page, Jennie, B.A.
Parker, Mrs. Frances G., B.A. (Eng. & Hist.)
Parlee, Edith. (Art.)
Parr, Sarah E. (Art.)
Pirie, Lizzie B.
Raitt, Helena G., M.A. (Fr. & Ger.)
Ramage, George E., B.A.
Redick, Clara L., B.A. (Phys. Cult.)
Reid, Edith L. (Art.)
Rendall, Stanley D.
Roberts, Mabel E.
Rodden, Mary K., B.A.
Ross, Margery E., B.A. (Phys. Cult.)
Russell, Flossie L.
Rutledge, Evelyn M.
Ryan, Gertrude, B.A.
Ryan, Mae H., B.A.
Saunders, Lucy, M.A.
Scanlon, Mary G. (Art.)
Schooley, Fred, T.
Shields, Jean S., B.A.
Shook, Muriel A. (Phys. Cult.)
Sillers, Roberta M., B.A.
Simpson, John M., B.A. (Phys. Cult.)
Singleton, Blanche, B.A.
Smith, Sadie L., B.A. (Science.)
Smith, Wallace W., B.A.
Somerville, Eva M.
Southcombe, William J. A., B.A. (Classics).
Spence, Ruth E., B.A. (Phys. Cult.)
Stanley, Fredrica.
Stark, Ethyle M., B.A. (Art.)
Stewart, James H. (Art.)
Stewart, Margaret E.
Stillwell, Laura M., B.A.
Stinson, Allie M. (Phys. Cult.)
Stinson, Mildred E., B.A. (Phys. Cult.)
Stollery, Edith, B.A. (Art.)
Syme, John J. (Phys. Cult.) (Only specialist's standing granted.)
Symons, Helen F., B.A. (Phys. Cult.)
Thompson, Howard E.
Tighe, Elsie S., B.A.
Towle, Lucie A.
Trace, Cephas M., M.A.
Traver, Lillie A., B.A.
Trenaman, Mabel N., B.A. (Phys. Cult.)
Turvey, Ina M. (Art.)
Van Duzer, L. Mabel, B.A. (Art.)
Walker, Ruth M., B.A.
Wallace, Mary H., B.A.
Wallace, Muriel J., B.A. (Phys. Cult.)
Wallace, Verna M.
Wallen, Wilfrid B.
Warren, Violet, B.A.
Weir, Julia M., B.A. (Art.)
Wheelton, Leonard. (Art.)
Williams, Winnifred L., B.A.

III. Permanent Elementary Certificates

Abraham, Mary B. (Art.)
Adamson, William H., M.A. (Phys. Cult.)
Allen, Eula P. (Phys. Cult.)
Anderson, Nellie L. (Art.)
Appelbe, Louise B., B.A. (Phys. Cult.)
Austin, Prudence M., (Phys. Cult.)
Awde, Elgin O., B.A. (Phys. Cult.)
Baird, Jean F., M.A. (Phys. Cult.)
Baker, Sarah J. (Phys. Cult.)
Brackenbury, George L., B.A. (Phys. Cult.)
Brewster, Gladys I. (Art & Phys. Cult.)
Broughton, Clara E. (Art.)
Clement, Jessie M., B.A. (Phys. Cult.)
Conway, Irene E. (Art.)
Coon, Amy. (Agri. & Hort.)
Daley, Mary M. (Phys. Cult.)
Davidson, Georgia, B.A. (Art.)
Dobson, Viola J., B.A. (Phys. Cult.)
Douglas, Adam C. (Phys. Cult.)
Downey, Emily (Sr. M. Kotska). (Vocal Music.)
Duncan, Muriel, B.A. (Phys. Cult.)
Dunlop, Charles G. (Phys. Cult.)
Ellerby, Florence E. (Phys. Cult.)
Farrington, Mabel C., B.A. (Phys. Cult.)
Fletcher, Douglas R. (Phys. Cult.)
Forsyth, Eunice A. (Agri. & Hort.)
Fothergill, Ethel L. (Phys. Cult.)
Fraser, Bertha F., B.A. (Phys. Cult.)
Galloway, William H. (Agri. & Hort.)
Garrett, Evelyn C. (Art.)
Gillespie, Grace A., B.A. (Phys. Cult.)
Glasgow, Marion I. (Phys. Cult.)
Haig, M. Helen. (Phys. Cult.)
Hall, Grace F., B.A. (Art.)
Hall, Margaret M. S., B.A. (Phys. Cult.)
Helson, Margaret J., M.A. (Phys. Cult.)
Hiscock, Reta, B.A. (Art.)
Howie, Mabel F. (Phys. Cult.)
Jardine, Amy M. (Art.)
Johnston, Hally, B.A. (Phys. Cult.)
Johnston, Helena E. (Art.)
Kirk, Hugh. (Agri. & Hort.)
Kirkwood, Elizabeth M. (Art.)
Lamont, Alex. D., B.A. (Phys. Cult.)
Lutman, Margaret E. (Phys. Cult.)
Maitland, Marion. (Phys. Cult.)
Martin, Jean E., B.A. (Phys. Cult.)
Mazinke, Henrietta E. (Art.)
Medcof, James L., B.A. (Phys. Cult.)
Might, Lincoln, M.A. (Phys. Cult.)
Millard, Lena. (Phys. Cult.)
Mills, Jennie. (Art.)
Mitchell, L. Grace. (Phys. Cult.)
Mitchell, May. Art.
Moir, Mary I., B.A. (Art.)
Morgan, Flora E. (Phys. Cult.)
Munro, Margaret K., B.A. (Phys. Cult.)
Murray, Edith M. (Phys. Cult.)
MacLeod, Emma B., B.A. (Art.)
McDonald, Vivian C. (Phys. Cult.)
McIntyre, (Mrs.) Edith M., B.A. (Phys. Cult.)
McLean, Mary B. (Agri. & Hort.)
McNabb, Finlay, B.A. (Phys. Cult.)
McNamara, Elizabeth. (Phys. Cult.)
McVean, Kathleen P., B.A. (Art. & Phys. Cult.)
Neagle, Agnes. (M. M. Stella) (Art.)
Norton, M. Maud. (Phys. Cult.)
Nugent, Eleanor, B.A. (Phys. Cult.)
Pacey, Mabel I. (Art.)
Page, Jennie, B.A. (Art.)
Pirie, Lizzie B. (Phys. Cult.)
Porter, William A. (Phys. Cult.)
Preston, Thomas, B.A. (Phys. Cult.)
O'Donohue, John. (Art.)
Ranson, Eva M. (Art.)
Rendall, Stanley D. (Phys. Cult.)
Sadler, Annie J. (Agri. & Hort.)
Scott, Jessie M. (Phys. Cult.)
Sillers, Roberta M., B.A. (Phys. Cult.)
Stark, Ethyle M., B.A. (Phys. Cult.)
Stark, Laverna B. (Art & Phys. Cult.)
Stewart, Annie J., B.A. (Phys. Cult.)
Sweeney, Agnes C. (Art and Phys. Cult.)
Thompson, Howard E. (Phys. Cult.)
Trench, Wm. W. A., B.A. (Commercial.)
Tucker, Mary C., M.A. (Phys. Cult.)
Turvey, Ina M. (Art & Phys. Cult.)
Walker, Alexina A. C. (Phys. Cult.)
Wallen, Wilfrid B. (Phys. Cult.)
Wells, Vera M. (Phys. Cult.)
White, Henry G. (Manual Training.)
White, Margaret E. (Art.)
Whyte, Marion I., B.A. (Phys. Cult.)
Wightman, Stanley, B.A. (Phys. Cult)
Wilker, Milton J. (Phys. Cult.)
Wilson, Phyllis (Sr. M. Christina). (Vocal Music).

IV. Permanent Supervisors

Binnie, Laura R. (Phys. Cult.)
Cringan, Alex. T. (Vocal Music.)
Carswell, Jean A. (Phys. Cult.)
Robbie, Isabella E. (Agri. & Hort.)
Foley, Teresa. (Sr. Lucretia), (Art.)
Kennedy, Maria (Sr. M. Borgia) (Art.)
Livingstone, May E. (Phys. Cult.)
Rannie, Marion R. (Vocal Music.)
Thompson, John T. (Phys. Cult.)

V. Permanent First Class Certificates

Arnot, Colin M.
Anderson, Effie E.
Aylsworth, Bessie C.
Anderson, Eunice M.
Armstrong, Mabel R.
Bowes, Emer W. J.
Boothby, Erma I.
Butler, Edna M.
Brownlee, Vera A.
Barnett, Gladys G.
Brown, William J.
Ballance, Florence R.

V. Permanent First Class Certificates.—Con.

Baker, Agnes H. C.
Bates, Alta E.
Cass, Annie H.
Clark, Lola M.
Campbell, Muriel F.
Carlyle, Margaret M., B.A.
Card, Marion J.
Coulter, Mary I.
Cline, Gertrude R.
Campbell, Laura.
Clark, Alice B.
Campbell, Mrs. Vera.
DeLaporte, Lucy H., B.A.
Davison, Margaret A.
Dawson, Sara E.
Deem, Edna M.
Dowd, Winnie M.
Dolbear, Callie C.
Dow, Laura J.
Elliott, Violet M.
Forsyth, Ernest, B.A.
Foster, Helen E.
Forsythe, Pansy A.
Fennell, Rena L.
Foreman Kathleen B., B.A.
Field, Helen, B.A.
Fyckes, Jessie D., B.A.
Gleeson, Nora.
Gill, Grace G.
Glen, Isabella P.
Gray, Laura B.
Gibson, Mary H.
Galbraith, Fannie H.
Geddes, Mary M.
Gould, Ford M.
Graham, George H., M.A.
Gilliland, Mary R.
Greaves, Helen.
Heather, Grace M.
Hale, Dorothy L.
Hopkins, Marguerite V.
Hammond, William G.
Hogarth, Hazel M.
Hall, Robinson A.
Hardy, Jessie R.
Hunt, Abigail.
Henry, Reta I.
Hartley, Emily M.
Hodgson, Mattie E.
Hoag, Percy W.
Irwin, Mary O.
Johnston, Florence M.
Johns, Thomas E.
Judd, William J.
Johns, Nancy L.
Kenyon, Grace.
Kirkwood, Eva V.
King, Annie A.
Kelly, Mabel L.
Kennedy, Mildred H.
Krug, Elizabeth A.
Logan, Meryol E.
Lee, Elizabeth D.
Love, Dorothy.
Lister, Clara I.
Lauber, Stella B.
Lalande, Mary B.
Love, Kathleen.
LeBoeuf, Emilie A.
McCaw, Kathleen P.
McCartney, Mary E.
McNabb, Allan P.
McAlpine, Agnes.
McLeod, Annie.
McLaughlin, Vivian.
MacGregor, John S.
MacKinnon, Helen C.
MacPherson, Rose.
Macdonald, Jean M., B.A.
Mungovan, Marguerite K.
Middough, Bessie I.
Murphy, Ruth M.
Murphy, Marguerite.
Muirhead, Jessie L., B.A.
Matchell, Ethel M.
Maus, Janet W., B.A.
Matthews, Ruby A.
Mather, Ana I.
Murchison, Mary B.
Milliken, Coral.
Petrie, Margaret.
Pow, Arthur W.
Pass, Clara A.
Payne, Kathleen M.
Peddie, Mary H.
Ross, Susan J.
Rutherford, Myrtle.
Robinson, Bertha E.
Steen, Elda G.
Shortt, Mrs. Rae M.
Shortt, Mrs. Evalena.
Simpkins, Helen M.
Spooner, Nellie E., B.A.
Sanderson, Elizabeth M.
Sangster, Grace.
Stover, Jane E.
Scott, Helen W., B.A.
Stouffer, Archibald.
Switzer, Kathleen R.
Sarjeant, Helen M.
Stong, Annie A.
Short, John H.
Simon, Cleda F.
Sweezey, Edna M.
Smyth, Alice C.
Turner, Hattie C.
Tranter, Hazel M.
Terry, Ruby E.
Thompson, Hope.
Vickery, Beatrice I.
Vardon, Muriel D.
Walls, Lillian.
Wilson, Elizabeth A.
Watson, Louisa S.
Warrell, Edith A.
Wilson, Jean R.
Walker, Annie.
Watson, Muriel H.
Wright, Edua.
Wilson, Nora E.
Walker, Gladys I.
Warren, Cecile V.
Wynn, Alma V.
Whale, Violet P.
Whiteman, Margaret.
Wordsworth, Margaret D.
Wilson, Laura I
Young, Laura G.
Yates, Blanche V.

VI. Permanent Second Class Certificates

Abra, Mabel M.
Abbott, Gladys M.
Armstrong, Dorothy M.
Allen, Edna L. M.
Aldcorn, Agnes J.
Alexander, Mary.
Atkinson, Sara E.
Andrews, Winnie I.
Adams, Jessie E.
Abel, Olive M.
Allen, Marion E.
Armour, Elma.
Arnold, Edith M.
Armstrong, Aggie J.
Almas, Mabel J.
Armour, Marguerite.
Anderson, Lena R.
Ainslie, Helen I.
Aitken, Margaret I.
Burgess, Margaret A.
Beneteau, Constance.
Beattie, Clara F.
Borst, Mrs. Beatrice H.
Bacon, Vera L.
Bonham, Ella M.
Bigelow, Bessie R.
Bishop, Lillian M.
Best, Norma E.
Bongard, Mrs. Cora L.
Baxter, Isabelle A.
Baxter, Anne S.
Bonnycastle, Helen M.
Benn, Luella L.
Baird, Myra H.
Burns, Sadie E.
Brooke, Lyla.
Burt, Grace.
Best, Hilda P. C.
Barber, Pearle.
Barr, Daisy A.
Brown, Inez E.
Brown, Margaret E.
Broadwood, Florence E.
Buchanan, Lulu M.
Brydges, Annabell.
Ballantyne, Anna L.
Blakely, Mabel B.
Brown, Ethel G.

VI. Permanent Second Class Certificates.—Con.

Brealey, Rheta A.
Bryan, Christena I.
Bedford, Hilda M.
Bell, Ruth.
Baird, Frances V. .
Burchill, Electa.
Bowland, Beatrice B.
Bowman, Lila.
Bowes, Isabel.
Broadfoot, Annie.
Bain, Helen.
Blanchard, Evelyn H.
Broadwood, Marjorie G.
Burchell, Verna.
Bryden, Winona I.
Bateman, Ruth I.
Butler, Veronica L.
Blanchfield, Agnes A.
Brown, Nellie M.
Brown, Bella.
Bradd, Margaret H. J.
Birkett, Elsie M.
Burke, Margaret A. (Sr. M. Clotilde.)
Boyle, Rachael E.
Brunder, Ella M. (Sr. M. Teresa.)
Black, Ketha.
Bruckner, Jean F.
Blair, Mary B.
Brimson, Elva E.
Bricker, Hilda M.
Breedon, Ethyle M.
Barnes, M. Ruperta.
Bradley, Emma F.
Bradley, Idella M.
Barnes, Vera.
Bierworth, Hilda E.
Barr, Dora I. M.
Barber, Winnifred E.
Burgess, Verna W.
Bornbold, Ruth E.
Barth, Frederick J.
Boyd, Maud L.
Bright, Amy E.
Booth, K. Winnie.
Brenchley, Mayme R.
Buchanan, Myrtle M.
Beaumont, Nellie.
Brackett, Lola M.
Barney, Elizabeth M. (Sr. M. Gonzaga.)
Byrne, Frances S.
Brown, Mary V.
Brohmann, Alfred.
Bateson, Ilda A.
Boehler, Kathleen.
Black, Hazel E.
Bates Mary E.
Burritt, Nellie M.
Baker, Lillian H.
Breen, Hazel M.
Benner, Mary J. W.
Bruce, Ruby D.
Batters, Susan.
Barron, Belle B.
Black, Lillian P.
Bickell, Julia C.
Baxter, Gladys C.
Cheney, Mary J.
Campbell, Florence A.
Carlton, Mrs. Elsie M.
Campbell, Annie.
Currie, Ida G.
Cassidy, Kathleen C.
Cantelon, Harold R.
Carey, Agnes B.
Curtin, Gladys H.
Conway, Annie M.
Courtney, Elsie G.
Craig, Mary L.
Cuthbertson, Edith B.
Crump, Myrtle I.
Caldwell, Lawrie M.
Cavanagh, Laura M.
Cuthbertson, Kathleen G.
Crawford, Isabel.
Cruse, Cora M.
Cox, Amelia M.
Calderwood, M. Helen.
Camm, Mary I.
Clemens, Mabel I.
Collins, Ida M.
Cannon, Hattie.
Collins, Mary H. (Sr. M. Paschal.)
Clark, Vera L.
Cook, Elsie M.
Clark, Mary (Sr. M. St. Vincent.)
Campbell, Verna.
Coleman, Verna.
Christie, Dora.
Core, Catherine M.
Carbert, Alice.
Corbett, Mary L.
Cale, Ruth S.
Campbell, Fred. A.
Connelly, Rita.
Carruthers, Princess E. M.
Carriveau, Annie F.
Cowain, Mary A.
Conley, Tena B.
Clark, Edith.
Cutler, Dorothy.
Culbert, Ina M.
Curry, Gladys A.
Campbell, Carrie M.
Campbell, Ida M.
Cameron, Ilah P.
Cross, Eva B.
Crawford, Maud.
Cole, Mildred F.
Cowan, Luella E.
Clark, Mary B.
Chaseley, Mabel.
Clare, Florence M.
Clark, May.
Cameron, Hettie T.
Cameron, Edna C.
Crowe, Mary F.
Carr, Sara.
Cleland, Ina.
Cunning, Edith E.
Draper, Annie G.
Dunlop, Annie M.
Downs, Julia R.
Dalby, Enid E.
Dillon, Marie A.
Danard, Edna M.
Dolmage, Elizabeth K.
Drennan, Pearl I.
Dunn, Margaret I.
Down, Myrtle A.
Dunn, Leonora.
Daley, Jessie K.
Demman, Sadie E.
Dobberman, Elsie A.
Dicks, Emily H.
Drapeau, Aurore (Sr. St. Audre Corsini.)
Dickson, Dorothy F.
Dertinger, Alice (Sr. M. Anastasia.)
Duffin, Georgina R.
Dorrance, Mabel.
Davidson, Lillian H.
Dodge, Dena M.
Dietrich, Rufina (Sr. M Josepha.)
Dickson, Mary E.
Doherty, Nellie.
Duck, Annie G.
Dunlop, Florence S.
Dodsworth, Georgiana.
Deacoff, Gertrude.
Drost, Stella C. (Sr. Cyprian.)
Dennis, Eva.
Dillon, Loretto. M.
Duffy, Mabel.
Duffield, Alma A.
Doyle, Genevieve.
Deck, Beatrice.
Dewan, Mary E.
Donnelly, Verna A.
Delahunt, Edna M.
Dever, Ida G.
Dool, Reta P.
Dutot, Ruth L.
Doan, Hugo. F.
Drohan, Mary F.
Douglas, Gladys M.
Dunning, Margaret E.
Darling, M. Claire.
Davidge, Minnie.
Davis, Alma H.
Eastcott, Constance E. H.
Emery, Dorothy L.
Ellis, Ruth.
Elliott, May L.
Elliott, Margaret E.
Evans, Olive I.
Elliott, Viola M.
Elliott, Anna M.
Eydt, Adeline A.
English, Mary.
Edgecombe, Ethelwyn.

VI. Permanent Second Class Certificates.—Con.

Elsley, Helen H.
Edwards, George F.
Easson, Catherine K.
Eckardt, Winnifred.
Egan, Katherine A.
Earle, Evelyn M. P.
Elliott, Sophie C.
Ferguson, Isabel G.
Flurey, Katherine A.
Frost, Marjorie G.
Firth, Maggie I.
Ferguson, Janet W.
Farlinger, Ada.
Falkins, Mae.
Ferguson, Hazel M.
Farrill, Mildred A.
Ferguson, Norma G.
Feely, Clara B.
Fitzgerald, Jennie V.
Fisher, Marie T.
Feeney, Marion S.
Fennell, Mildred H.
Fleming, Mellicent A.
Frazer, Mary.
Freeman, Gertrude C.
Farrant, May M.
Fallis, Frances. M. M.
Fairchild, Olivia.
Falls. Iva. A.
Fisher, Myrtle A.
Farrell, Nellie.
Fenn, Ruth I.
Francis, Lilian F.
Field, Rheta F.
Fawcett, Marjorie I.
Galbraith, Mary C.
Greenwood, Edith.
Gollins, Effie M.
Green, Lila V.
Green, Lois M.
Geddes, Annie E.
Gubbins, Roberta I.
Gardiner, Annie.
Grieve, Helen M.
Gregory, Sara E.
Green, Kathleen L.
Green, Janet L.
Gray, Gladys M.
Gibson, Hazel M.
Goodwill, Muriel E.
Garragh, M. Evelyn.
Galbraith, Annie.
Gilmour, Charlotte E..
Groves, Estella C.
Glavin, Mary A. (Sr. St. Omer.)
Gardiner, Sarah M.
Gourlay, Jane.
Gerow, Sarah E.
Guenther, Letta R.
Ghent, Jessie M.
Gillogly, Mary J.
Gibbons, Kathleen A.
Gill, Alice D.
Goulding, Hazel E.
Grier, Margaret J. (Sr. M. Winnifred.
Greer, Jessie A.
Gullett, Marjory L.
Gordon, Tula I.
Giles, Elizabeth A.
Glassford, Vivian I.
Giffen, Bertha E.
Griffith, Sara A.
Gleeson. Julia B.
Gaynor, Ethel L.
Granton, Alda M.
Hudson, Mary W.
Holmes, Esther L.
Hart, Lillian M.
Hildebrandt, Alexander A.
Houlahan, Clara, M. A.
Hance, Ruth A.
Hollingsworth, Marion M.
Howse, Arthur T.
Hayes, Fannie M.
Hannon, Mary M.
Horne, Jessie.
Holtorf, Agnes.
Hamilton, Martha.
Howard, Ruth A.
Hall, Robert W. E.
Hawley, Kathleen L.
Hart, Winona J.
Honey, Mary B.
Herron. Rosa E.
Hubble, Agnes M.
Hayter. Ruth A.
Hoeflin, Ada M.
Hinman, Harriett A.
Hanlon, Mary.
Hofstetter, Ireue.
Hetherington, Nellie.
Humphrey, Mildred.
Harris, Lottie M.
Hobbs, Vera H.
Hodgins, Myra E.
Hutchison, Mary.
Harper. Leila R.
Hartleib, M. Carrie (Sr. M. Johanna).
Hawkins, Mae (Sr. M. Theophane).
Hobbs, Anna E.
Hubbs, Helen M.
Hagedorn, Elsie C.
Hamilton, Blanche I.
Hardy, Lilian V.
Hornick, Lauretta.
Horricks, Laura A.
Harkin, Gertrude M.
Hamilton, Alice L.
Hayden, Eva B.
Hailstone, Ella M.
Hildred, Effie J.
Hull, Bessie M.
Heslop, Florence B.
Hardie, Bessie M.
Hennessy, Nina A. (Sr. St. Alban).
Hall, Melba E.
Higgins, Frances M.
Hurley, Edna.
Hutson, Mary E.
Howarth, M. Winifred.
Holmes, Harold S.
Hammar, Elizabeth M.
Holtzman, Beulah.
Hudelmaier, Florence B.
Henry. Elizabeth.
Harron, Florence M.
Hunter, Etta L.
Haist, Martha A.
Halladay, Beatrice M.
Heaslip, Cora.
Heywood, Evelyn.
Hogarth, Evelyn M.
Harswell, Hazel A. E.
Innes, Nora M.
Ingall, Vera A.
Irwin, Coral A.
Irwin, Edwina H.
Isaac, Oni.
Jackson, Sara E. M.
Johnson, Kathleen A.
Johnston, Edythe E.
Johnston. Amy.
Johnston, Elizabeth M.
Jackson, Nelda B.
Jackson, Ada M.
James, Mary J.
Jermyn, Laura O.
Jenkins, Adelaide E.
Johnston, Jean R.
Jackson, Teresa K.
Jameson, Gladys C.
Johnston, Charlotte L.
Jones, Gladys W.
Justin, Margaret P.
Jay, Eva F.
Jacques, Dorothy E.
Jordan, Teresa.
Jackson, Alzena J.
Johnson, Eliza.
Johnston, Mary E.
Johnston, Esther M.
Johnson, Gertrude S.
Jones, Blanche.
Jordan, Molly E.
Kennedy, Lila E.
Kratz, Edith.
Kerr, Mabel R.
Kirke, Kathleen M.
Kellaway, Bessie.
Kennedy, Maude A.
Kerr, Ruby O.
Kehoe, Kate.
Kelly, Edna B.
Kleinfeldt, Susan E.
Kerr, Margaret B.
Kirkwood, Gladys G.
Kerr, Alma M.
Karr, Ivy I.
Kempton, Tabitha M.
Kendrick, Helen M.
Keelan, Irene C. (Sr. M. Giles).

VI. Permanent Second Class Certificates.—Con.

Knechtel, Walter M.
Kennedy, Inez M.
Kennedy, Nellie.
Kaiser, Ora C.
Kennedy, Lilian L. (Sr. M. Celestine).
Kearney, Creta M.
Kerruish, Edna M.
Kalbfleisch, Freda M.
Keaney, Annie B.
Kennedy, Muriel E.
Kirby, Caroline M.
Lehrbass, Frieda M.
Lyons, Beatrice C.
Laidlaw, Anna. H.
Lounsbury, Muriel B.
Lennox, Addie J.
Long, Jennie M.
Lennox, Grace M.
Locke, Muriel K.
Long, Helen.
Loney, Marjorie M.
Lawrence, Edith M.
Levitt, Pearl.
Lawrence, Lena B.
Linn, Mabel M.
Lake, Ivy.
Leckie, Edith H.
Leach, Beatrice M.
Latimer, Emma E.
Lochart, Vera.
Locklin, Mae.
Louch, Annie E.
Love, Pearl.
Leonard, Marguerite M.
Laundy, Gladys E.
Leitch, Jessie F.
Lynchke, Frances M.
Lawson, Mary C.
Lincè, Esther M.
Lang, John H.
Long, Hattie G.
Longstrect, Bonnie.
Loveland, Mary E. (Sr. M. Laurentia).
Lynett, Joseph.
Lynch, Verna.
Laverty, Charlotte M.
Moore, Carrie A.
Matthews, Norma.
Masales, Mary C.
Moir, Agnes W.
Morley, Ruth.
Mitchell, Edith E.
Merritt, Ellen D.
Moyer, Hazel I.
Mitchener, Flossie I.
Miller, Revah E.
Martin, Una G.
Morrison, Christina E.
Macklin, Ethel G.
Martin, Grace E.
Morris Maude M. (Sr. M. Edwardine).
Marsh, Beulah M.
Midgely, Jennie R.
Mullen, Nellie G.
Manning, Leatha M.
Mounce, Lizzie M.
Murray, Helen M.
Milne, Margaret J.
Meagher, Alma C.
Miller, Annie S.
Murray, Madeleine.
Martin, Helena (Sr. M. Caia).
Morrison, Lila I.
Merrick, Mary P.
Moffatt, Clara E.
Marcellus, Kathryn M.
Morris, Lillian A. M.
Marsh, Tena.
Middleditch, Margaret I.
Millikin, Louise.
Muir, Mary A.
Master, Grace.
Mountain, K. Shirley.
Martin, Edith P.
Munro, Amy.
Marshall, Annie N.
Moffat, Alexia E.
Martin, Ida J.
Maxwell, Jean E.
Miehlhausen, Sylvia C.
Miller, Edna L. P.
Mosley, Annie.
Mosley, Elsie.
Meredith, Laura M.
Munro, Malcolmina.
Mayhew, Vivian P.
Martin, Georgina M.
Miller, Della.
Munro, Edna E.
Munt, Winnifred S.
Matheson, Margaret A.
Moorehead, Clara M.
Moore, Dorothy B.
MacDevitt, Mrs. Wilhelmina M.
MacDonald, Margaret J.
MacKinnon, Florence.
MacDonald, Margaret D.
MacLaurin, Margaret.
Macdonald, Annie.
MacGregor, Rubena R.
Mackenzie, Anna.
MacTavish, Elizabeth.
MacArthur, Annie H.
Macdonald, Roberta.
MacKenzie, Grace R.
MacDonald, Sadie F.
MacDermid, Pearle.
MacNeil, Marion L.
MacIntyre, Margaret H.
McMullen, Gladys L.
McLean, Grace.
McMillan, Madge.
McCord, Evelyn M.
McLean, William P.
McGuirl, Allan C.
McKinnon, Elizabeth A.
McAuley, Margaret F.
McCordic, Via B.
McAfee, Irene.
McCarten, Kathleen M.
McDonald, Eva M.
McLeish, Marjorie.
McFarlane, Effie M.
McPherson, Margaret M.
McClure, Jean K.
McArton, Elsie.
McKnight, Lulu B.
McLeod, Elizabeth.
McCulloch, Edna K.
McMahon, Hazel I.
McKnight, Lena M.
McLaughlin, Mirian A.
McIntyre, Hannah F.
McKenzie, Ruth M.
McEvoy, May A. (Sr. St. Cleta).
McMullen, Samuel.
McLachlan, Archie T.
McLean, Tena E.
McKee, Alice L.
McNeill, Vivian M. F.
McCordic, Hannah G.
McMahon, Edna N.
McNamara, Wilfrid O.
McGuire, Florence E.
McAdam, Martha E.
McArthur, Lillian H.
McKenzie, Jean I.
McLachlin, Margaret E.
McCrimmon, Sara M.
McGill, Margaret H.
McLeod, Carrie.
McKibbon, Edna R.
McLean, Maria A.
McMaster, Agnes A. V.
McCulloch, Elsie M.
McConnell, Cenoe.
McInnis, Grace W.
McKinlay, Nettie.
McQuaker, Agnes.
McQueen, Violet.
McMechan, Clara E.
McCurdy, Vera C.
McEwen, Selena P.
McFadden, Emily M.
McGeary, Wynnifred.
McLean, Mary.
McLean, Beatrice E.
McKernan, Mary E.
McCannel, Ora M.
McNally, Alice M.
Newhouse, Marietta E.
Newman, Olga H.
Nicholls, Nellie M.
Nurse, Olive I.
Newton, Elizabeth U.
Newman, Lillian B.
Nicholls, Florrie M.
Noonan, Patricia.
Newell, Florence M.
Nichol, Annie M.
Needham, Anna.
O'Malley, Mary A.
O'Grady, Martha.
O'Neill, Margaret.
Orr, Margaret O.

VI. Permanent Second Class Certificates.—Con.

Oliver, Eliza A.
Orr, Bessie M.
O'Brien, Janie A.
Oliver, Jessie E.
Oestreicher, Lydia E.
Ottewell, Frances G.
Olds, Bertha T.
O'Brien, Olive M.
O'Connell, Mary E.
O'Reilly, Maude M.
O'Brien, Alice J.
Owens, Catharine.
Paterson, Madeline R.
Prosser, Joy.
Proudfoot, Mrs. Catherine.
Pye, Alice C.
Pye, Eva K.
Powell, Joan L.
Perkin, Ivy L.
Philp, Vivien W.
Poast, Alma G. W.
Pilsworth, Adeline E.
Pritchard, Mina.
Phelan, Margaret M.
Philip, Grace C.
Payne, Frances E.
Pullen, Lela.
Payette, Blanche R.
Plunkett, Grace A.
Park, Sara E. M.
Parker, Thelma.
Pope, Audrey L.
Price, Mrs. Pearl.
Powers, Raymond L.
Peden, Flora M.
Phillips, Helen G.
Purvis, Janet G.
Palmer, Hazel B.
Pettit, Zita M.
Percival, Jessie E.
Queenan, Katie.
Rutherford, Jean C.
Riddell, Margaret E.
Robinson, Elsie I.
Renwick, Florence M.
Ruby, Kathleen M.
Ramsay, Queenie.
Robertson, Hilda K.
Russell, Bella L.
Reynolds, Hannah L.
Ruttan, Mary.
Ralph, Lilian A.
Robinson, Lelia M.
Richardson, Cecelia D.
Rowsom, M. Arilla.
Riley, Kathleen.
Roe, Florence A.
Rutherford, Gertrude L.
Ritchie, Della J.
Reynolds, Lillie.
Roberts, Nellie J.
Reynolds, Edith M.
Reynolds, Albert.
Reid, Katherine B.
Ross, Clarence M.
Ritchie, Mary E.
Robinson, Eva.
Reid, Grace M.
Robertson, Edna R.
Richardson, Pauline M.
Ralph, Florence K.
Rutherford, Kate M.
Robinson, Christine A.
Ramage, Elizabeth R.
Rutherford, Marion E.
Redmond, Mae L.
Remhe, Helena H.
Rowntree, Tressea A.
Ross, Eula I.
Ross, Isa E.
Riddle, Gertrude I.
Reycraft, Elena.
Reed, Jean.
Riordan, Edward M.
Richards, Helen L.
Ross, Mona A.
Ross, Christina.
Railton, Myrtle.
Robb, Gladys E.
Rothmann, Flora M.
Robertson, Jean P.
Reycraft, Ada G.
Robbins, Harry M.
Russell, Ruth H.
Rutherford, Charles H.
Ross, Mrs. Annette.
Steer, Oliver M.
Stewart, Marion.
Sloan, Edna V.
Smith, Edith F.
Shearer, Helen.
Sage, Dorothy H.
Stevens, Lillian E.
Smibert, Kathleen.
Smith, Lucy A.
Shaver, Jessie A.
Smith, Muriel J.
Small, Bertha M.
Singleton, Edna E.
Stinson, Verna L.
Scott, Edna.
Smith, Amy.
Scott, Eleanor W.
Stout, Edith M.
Smith, Nora C.
Stobo, Mary G.
Smyth, Susie I.
Sheppard, Vera.
Smith, Mabel A.
Sherk, Mrs. Olive.
Smith, Myrtle A.
Swain, Audrey.
Seaman, John R.
Scott, M. G. Jeanne.
Sutherland, Agnes G.
Shaw, Essie A.
Selmann, Sadie L.
Sullivan, Vera.
Schwartz, Matilda E.
Steer, Louella V.
Smith, Alice M.
Scott, Margaret F.
Short, Annie E.
Smith, Alice M.
Stetler, Clara M.
Somerville, Hannah E. I.
Scott, Lorene J.
Slater, Blanche I.
Snyder, Mary E.
Synnott, Norman.
Schaefer, Anna D.
Sheppard, Mary N.
Sinclair, Agnes H.
Swerdfager, Ina M.
Shaver, Gladys.
Sanderson, Ruby J.
Staley, Helena (Sr. Mary Louise).
Stock, Leonore (Sr. M. Henrietta).
Staply, Sarah A.
Seymour, Marguerite.
Schenck, Mary F. A. (Sr. M. St. Lewis).
Scharf, Minnie B.
Scott, Edith M.
Stanfield, Laura L.
Somerville, Myrtle J.
Scott, Helen M.
Sweet, Helen E.
Sanders, Edith M.
Schnekenburger, Mattie.
Steele, Ada.
Scott, Muriel G.
Sturgeon, E. Lemoine.
Sterling, Mary.
Sparling, Lyla M.
Stockwell, Mrs. Annie E.
Smith, Lillie E.
Sutherland, Catharine B.
Thomson, Margaret W.
Titus, Hazel A.
Turner, Edna M.
Triehner, Florence L.
Teasdale, Joseph R.
Truax, Constance C.
Thomas, Grace.
Tolhurst, Leonora.
Tripp, Hazel F. I.
Trotter, Evelyn M.
Taylor, Edna E.
Thompson, Winnifred E.
Tuttle, Mrs. Lila G.
Tichborne, Olive M. W.
Tobin, Mary L.
Tucker, Margaret C.
Thurston, Dell.
Thom, Isabel M.
Traves, Beatrice.
Tinney, Rosa E.
Taylor, Sara M.
Tweedy, Bertha.
Towriss, Lottie E.
Taylor, Ethel A.
Thompson, Blanche G.
Tighe, Mary F. O. (Sr. M. St. Basil).
Theobald, Florence B.

VI. Permanent Second Class Certificates.—Con.

Thomson, M. E. Fern.
Taylor, Eva M.
Tate, Ellen.
Thompson, Dorothy.
Thomas, E. May.
Topping, Eva J.
Tobin, Violet.
Thompson, Leah M.
Ventress, Helen E.
Vantsone, Gertrude.
Venning, Nellie M.
Vickers, William.
Vance, Jean V.
Vining, Harriete J.
Walker, James G.
Watt, Mrs. Wilhelmina.
Wilkinson, Florence E.
Watson, Cedric E.
Wismer, Lulu M.
Willard, Hattie J.
Williams, Edith G.
Westlake, Alice E.
Weegar, Ena D.
Willcox, Gertrude.
Wilson, Richard E.
Waddell, Edith.
Wing, Muriel L.
Wilson, Eleanor E.
Wanklin, Geneva.
Wade, Mary.
Willard, Ethel M.
Walker, Janet I.
Wood, Ruby H.
Walden, Nora.
Weinert, Charlotte M.
Woodworth, Leila M.
Wilson, Gertrude L.
Williamson, Jessie L.
Woods, Nina R.
Ward, Frieda C.
Wallace, Felicia D.
Waring, Clara I.
Whiting, Florence M.
Willan, Eva M.
Wilton, Susie E.
Wynn, Florence A.
Welsh, Helen.
Ward, Florence H.
Wright, Edith G.
Walsh, Katie M.
Willis, Ada V.
Wakeford, Vera V.
Watson, James R.
Wolfe, Mary E.
Warmington, Edna J.
Werry, Alice G.
Waugh, Ella E.
Wood, Libbie.
Woods, Anna.
Webb, Rachel E.
Yelland, Vivian G.
Young, Rhoda M.
Young, Mary M.
Zurbrigg, Mildred T.
Zimmer, Charlotte (Sr. M. Oswald).

VII. Kindergarten Directors' Certificates

Leggott, Ethel M.
Steele, May K.

VIII. Permanent Kindergarten-Primary Certificates

Claris, Edna P.
Coyne, Erma L.
Cunningham, Beatrice.
Davidson, Susan G.
Ferguson, Mrs. Estelle.
Gearing, Marguerite.
Hall, Ethel M.
Heaman, Annie V.
Jackson, Flora L.
Johnson, Lulu A.
Mair, Winnifred M.
Macpherson, Edith.
McCrae, Edith.
Ormiston, Jessie M.
Peacock, Mary A.
Robertson, Florence M.
Rankin, Mary C.
Robb, Alma F.
Rough, Susie P.
Simpson, Lena R.
Sparling, Chryssa A.
Sproule, Thomasene.
Thomson, Margaret.
Tyler, Hilda.
Watson, Winifred.
Woods, Marjorie H.

IX. Manual Training Certificate

Permanent Ordinary

Smyth, William E.

X. Household Science Certificates

Permanent Ordinary

Campbell, Clara L.
Munt, Grace F.
McNally, Frances.

XI. Professional Certificates, 1918

—	No. of Candidates	Extra Mural Students	High School Permanent Certificates	High School Interim Certificates	Permanent Provincial First Class Certificates	Interim First Class Certificates	Permanent Second Class Certificates	Interim Second Class Certificates	Limited Third Class Certificates, valid for five years	District Certificates, valid for one or two years	Extended District Certificates (Academic Course)	Total number of Certificates
Faculties of Education	280	34	.....	84	.....	186	....	14	.....	.....	.....	284
Normal Schools	1473	135	.....	.....	.....	....	....	1351	207	.....	.....	1558
Autumn Model Schools	86	4	.....	.....	.....	....	....	....	86	2	.....	88
English-French Model Schools	102	....	.....	.....	.....	....	....	....	49	.....	.....	49
Summer Model Schools	276	....	.....	.....	.....	....	....	....	63	116	73	252
Certificates issued on *pro tanto* standing	....	....	.....	.....	.....	....	....	8	21	.....	.....	29
Interim High School Certificates, issued on reaching 21 years of age	*93	....	.....	.....	.....	....	....	....	.....	.....	.....	93
Interim Certificates made permanent	....	....	203	....	151	....	881	....	.....	.....	.....	1235
Total number of newly certificated teachers	....	....	.....	84	.....	186	....	1373	426	118	.....	2187

*These previously held Interim I Class Certificates.

Household Science

Number of Interim Ordinary Certificates	22
Number of Interim Specialist Certificates	9
Number of Permanent Ordinary Certificates	3

Manual Training

Number of Interim Ordinary Certificates	4
Number of Interim Specialist Certificates	2
Number of Permanent Ordinary Certificates	1

Kindergarten Certificates

Number of Interim Kindergarten-Primary Certificates	17
Number of Permanent Kindergarten-Primary Certificates	27

Physical Culture Certificates

Number of Interim Elementary Physical Culture Certificates (Faculty of Education) 77

Summer School Certificates

Elementary Agriculture and Horticulture (Interim)	123	Farm Mechanics (Interim)	9
Intermediate Agriculture and Horticulture (Interim)	9	Kindergarten-Primary (Interim)	11
Elementary Art (Interim)	54	Elementary Manual Training (Interim)	6
Supervisors in Art (Interim)	57	Elementary Vocal Music (Interim)	18
Specialists in Art (Interim)	39	Supervisors in Vocal Music (Interim)	9
Specialists in Commercial Subjects (Interim)	4	Elementary Physical Culture (Interim)	75
		Supervisors in Physical Culture (Interim)	48
		Specialists in Physical Culture (Interim)	85

NOTE—In addition to the above, twenty Interim Certificates in Elementary Physical Culture were granted on *pro tanto* standing.

Number of Interim Elementary and Supervisors' Certificates made permanent 10

XII. Temporary Certificates issued in 1918

Inspectorate	Number during 1st half year	Number during 2nd half year
Bruce, E.	7	9
Bruce, W.	3	.....
Carleton, E	4	3
Carleton, W & Lanark, E.	4	7
Dufferin	4	1
Elgin, E.	1	.....
Essex, N. (in part only)	2	.....
Essex, S.	3	1
Frontenac, N., & Addington.	20	38
Frontenac, S.	5	12
Glengarry	5	.....
Grey, E.	.....	2
Grey, S.	5	1
Grey, W	3	1
Hastings, Centre	1	6
Hastings, N.	5	11
Hastings, S.	5	3
Kent, W.	3	.....
Lambton, W. (No 1)	2	.....
Lambton, E. (No. 2)	1	.....
Lanark, W.	13	13
Leeds and Grenville, No. 1.	3	1
Leeds and Grenville, No. 2.	2	.....
Leeds and Grenville, No. 3.	7	1
Lennox	12	13
Lincoln and Pelham Tp.	1	.....
Norfolk	4	.....
Northumberland & Durham		
West, No. 1	3	.....
Centre, No. 2	2	2
East, No. 3	6	1
Ontario, N.	2	.....
Ontario, S	4	2
Oxford, N.	1	.....
Oxford, S.	2	.....
Peel	4	.....
Peterborough, E.	7	6
Peterborough, W. & Victoria, E.	1	2
Prescott and Russell	7	27
Prince Edward	3	.....
Renfrew, N.	1	6
Renfrew, S	4	12
Simcoe, N	2	.....
Simcoe, S.	1	.....
Stormont	2	1
Victoria, W	1	2
Waterloo, N (No. 1)	1	.....
Waterloo, S (No. 2)	1	.....
Wellington, N.	1	.....
Wellington, S.	3	.....
Wentworth	1	.....
York, N.	2	.....
District Divisions:		
No. I	15	11
No. II	19	2
No. III	6	6
No. IV	9	7
No. V	9	3
No. VI	6	10
No. VII	15	18
No. VIII	10	20
No. IX	26	30
No. X	5	8
No. XI	8	11
No. XII	.....	16
English-French Divisions:		
No. IA	1	.....
No. IIA	11	1
No. IB	.....	1
No. IIB	21	3
R.C. Separate Sch. Divisions:		
No. I	4	.....
No. II	.....	1
No. III	4	2
No. IV	8	9
No. V	9	34
No. VI	2	9
Totals	375	386

APPENDIX T

ORDERS-IN-COUNCIL

Miss Louise Fearson appointed teacher in the School for the Deaf, such appointment to date from 15th Jan., 1919. Approved, 9th January, 1918.

Hon. Haughton I. S. Lennox, Justice of the Supreme Court of Ontario, appointed a Commissioner to inquire into and report upon the Building Department of the Board of Education of the City of Toronto, as requested by said body. Approved 9th Jan.

List of Schools and Teachers as contained in pamphlet dated November, 1917, approved 14th Jan.

Reports of Departmental and Matriculation Associate Examiners as contained in Circular 66, approved 17th Jan.

Agreement made with the Macmillan Company of Canada, Limited, respecting the right to print, publish and supply the "Ontario High School Physical Geography." Approved 18th Jan.

Agreement made with William Briggs, as Book Steward, Toronto, respecting the right to print, publish, and supply the "Ontario Teachers' Manual on Elementary Agriculture and Horticulture." Approved 23rd Jan.

Regulations, Professional Courses, and Examinations for Public School Inspectors' certificates, as contained in Circular No. 80, approved 29th Jan.

Agreement made with the Canada Publishing Company, Limited, of Toronto, respecting the right to print, publish, and supply the "Ontario High School Reader." Approved 29th Jan.

Agreement made with the Canada Publishing Company, Limited, respecting the right to print, publish, and supply the "Ontario High School English Grammar." Approved 29th Jan.

Miss Agnes C. Hanahoe appointed Head Mistress of the Girls' Model School at Ottawa. Approved 4th Feb.

George Chandler appointed Fireman and Watchman of the Normal and Model Schools, Toronto. Approved 18th Feb.

Agreement made with the Educational Book Company of Toronto, Limited, respecting the right to print, publish, and supply the "Ontario School Bookkeeping, Second Course." Approved 25th Feb.

The following appointments to the staff of the Ottawa Normal Model School, approved 25th February:—

C. P. Halliday, teacher.
Miss Lilias Henderson, Kindergarten-Primary teacher.
Miss A. H. Baker, Kindergarten teacher.
Miss Norma McRitchie, Assistant Kindergarten teacher.

Also Mr. Milton Sorsoleil appointed Principal of the Toronto Normal Model School.

C. S. Nicholson appointed Farmer and Agricultural teacher at the School for the Deaf, Belleville. Approved 7th March.

Miss M. K. Caulfeild appointed Headmistress of the Girl's department of the Toronto Normal Model School. Approved 15th March.

Instructions *re* Junior High School Entrance and Junior Public School Graduation Examinations for 1918, as contained in Circular 57, approved 15th March.

A. M. Burnham appointed Clerk under Departmental Examinations. Approved 26th March.

Special Regulations for the Medical and Dental inspection of Separate Schools, approved 27th March.

Instructions regarding Teachers' and Inspectors' Superannuation Act, as contained in Circular 31, approved 19th April.

Instructions to School Inspectors regarding the apportionment of the Legislative Grants, as contained in instructions Nos. 12 and 13, approved 19th April.

Miss Dora Allen appointed Secretary and Stenographer to the Deputy Minister of Education, Miss Jessie Craig appointed as Stenographer under the Public Libraries Branch, and Miss Winifred Courtney appointed Clerk and Stenographer under Departmental Examinations, said appointments to take effect from 1st May, 1918. Approved 23rd April.

Agreement made with the Copp, Clark Company, Limited, of Toronto, respecting the right to print, publish, and supply "The Ontario Standard Note Book." Approved 1st May.

Provisions of Circular 27 respecting the employment of school pupils on farms in Ontario, so amended that similar employment elsewhere may be accepted. Approved 2nd May.

Empire Day Programme as contained in the pamphlet, and the Summer Courses and Examinations in 1918 for teachers, approved 9th May.

Text-book regulations as contained in Circular 14, and the Literature selections of 1919 as contained in Circular 58, approved 29th May.

Notwithstanding any existing regulations and the terms of the Order-in-Council of 19th June, 1917, classes beyond Form V in operation in certain public and separate schools to be admitted to write at the Departmental Examinations in June, 1918, on the same conditions as candidates from Continuation Schools, and such schools shall be deemed as coming under the Regulations relative to enlistment and farm employment. Approved 23rd May.

Harry Bertram Anderson, M.D., appointed Official Medical Referee to perfrom the duties prescribed in subsection 4 of section 11 of the Teachers' and Inspectors' Superannuation Act. Approved 6th June.

Geo. F. Rogers, B.A., appointed High School Inspector, the appointment to take effect 1st Sept., 1918; J. M. McCutcheon, B.A., B.Pæd., appointed Departmental Master at the London Normal School, said appointment to take effect 1st July, 1918; and W. I. Chisholm, M.A., appointed Assistant Chief Inspector of Public and Separate Schools. Approved 12th June.

Mrs. Balis, Miss Ada James, Miss Mary Bull, Miss N. Brown, and Mr. D. R. Coleman, teachers in the Manual Training department of the School for the Deaf, granted special certificates enabling them while employed on the teaching staff of said school to become eligible as contributors to the Teachers' and Inspectors' Superannuation Fund. Approved, 13th June.

Principal Radcliffe, of the London Normal School, appointed acting Principal of the Toronto Normal School, and John Dearness appointed Acting Principal of the London Normal School, said appointments to take effect 1st Sept., 1918. Approved, 9th July.

Alonzo J. Madill, B.A., appointed Science Master at the Normal School, Peterborough, for one year from 1st Sept., 1918. Approved 12th Aug.

Regulations and Courses for the English-French Model Schools for 1918-19 as contained in Circular 41½, and the Regulations, Courses of Study and Examin-

ations of the Autumn Model Schools for the Session of 1918, as contained in Circular 4, approved 15th August.

The following persons appointed Literary Teachers at the School for the Deaf, Belleville, for one year commencing 1st Sept., 1918: Misses G. Springer, V. Handley, E. Panter, B. Riordan, F. Currie, L. Fearson, N. Brown, I. Palen, M. Hitchcox, I. Aherne, K. B. Scott, Ethel Nurse, Lena Carroll, Grace Graham. Approved 22nd August.

Miss Rose Lynch appointed as teacher in the Ottawa Normal School, said appointment to take effect 1st Sept., 1918. Approved 28th Aug.

Thomas E. Clarke, B.A., B.Pæd., appointed Departmental Master at the London Normal School, Adrian Macdonald, M.A., appointed Departmental Master at the Peterborough Normal School, and Charles McDowell, appointed Inspector of Public Schools, said appointments to take effect 1st September, 1918. Approved 28th August.

Course in History for the Junior High School Entrance Examination, revised 1918, as contained in Circular 35, approved 28th Aug.

"The War and the Schools," special regulations for 1918-19, as contained in Circular 27, approved 3rd Sept.

Miss Gladys M. McClenaghan appointed Assistant Kindergarten teacher at the Ottawa Normal School from 1st Sept., 1918. Approved 3rd Sept.

Harry Bond appointed Chief Engineer at the School for the Blind, said appointment to begin 15th Sept., 1918. Approved 5th Sept.

Paul Greenwood appointed Boys' Supervisor at the School for the Blind for nine months, such appointment to date from 25th Sept., 1918. Approved 10th Sept.

Amendments to the Regulations of the Collegiate Institutes, High and Continuation Schools, and the Public and Separate Schools, as contained in Circular 34 of 1918, approved 17th Sept.

J. C. Logan appointed Writing and Bookkeeping Master at the Ottawa Normal School. Approved 12th Oct.

Particulars regarding the courses in Spanish, as contained in Circular No. 36, approved 19th Oct.

George Walton appointed to the position of Delivery Clerk in the Department of Education, such appointment to date from 1st Nov., 1918. Approved 29th Oct.

Joseph Thompson appointed Storekeeper in the Department of Education, such appointment to date from 1st Nov., 1918. Approved 29th Oct.

Catalogue of books recommended for Libraries of Collegiate Institutes, High Schools, and Continuation Schools, approved 29th Oct.

Agreement made with the Macmillan Company of Canada, Limited, respecting the right to print, publish, and supply "The Ontario High School Physical Geography." Approved 30th Oct.

Agreement made with the Macmillan Company of Canada, Limited, respecting the right to print, publish, and supply "The Ontario Public School History of Canada and The Ontario Public School History of England," bound in a single volume. Approved 30th Oct.

Agreement made with William Briggs, as Book Steward, Toronto, respecting the right to print, publish, and supply "The Ontario Teachers' Manual on Household Science in Rural Schools." Approved 30th Oct.

Reports of the Departmental Examiners on the Midsummer Examinations, as contained in Circular 66, approved 5th Nov.

Mrs. Bertha McGee appointed stenographer in the Department of Education. Approved 20th Nov.

Harry Bond appointed Mechanical Superintendent at the School for the Blind. Order-in-Council passed 5th September, 1918, appointing him as Chief Engineer, rescinded. Approved 23rd November.

John R. Humphreys reappointed a member of the Commission created under the Teachers' and Inspectors' Superannuation Act. Approved 29th Nov.

Joseph Lapensee appointed Assistant Teacher in the Sturgeon Falls English-French Model School, such appointment to commence on 11th Dec., 1918. Approved 11th Dec.

John Gillespie appointed stoker at the School for the Blind, such appointment to date from the 16th December, 1918. Approved 11th Dec.

Charles Payne, appointed engineer at the Peterborough Normal School, such appointment to take effect on 1st Jan., 1919. Approved 11th Dec.

Option between the use of German and Spanish languages in the Courses of the University of Toronto for 1918-19 approved as satisfactory so far as the courses specified are used in the examinations of the Department of Education. Approved 16th Dec.

Provisions and information contained in Circulars 66A and 32, regarding Midsummer Examinations, 1918 and 1919, respectively, approved 16th Dec.

Miss Muriel Brothers, B.A., appointed teacher at the Ottawa Normal Model School. Approved 30th Dec.

APPENDIX U

AUTUMN MODEL SCHOOLS, 1918

School	Principal	Attendance			Extra Mural	Limited Third Class Certificates	District Certificates
		Total	Male	Female			
Clinton	C. D. Bouck	6	0	6	1	5	2
Cornwall	G. R. Theobald	16	0	16	0	16	0
Kingston	W. F. Inman	*15	0	15	0	14	0
Madoc	R. A. A. McConnell	13	0	13	0	13	0
North Bay	A. C. Casselman	5	0	5	1	6	0
Orillia	C. L. T. McKenzie	9	0	9	2	11	0
Port Arthur	J. H. W. McRoberts	6	0	6	0	6	0
Renfrew	W. T. Baker	†16	0	16	0	15	0
Totals		86	0	86	4	86	2

* One deceased.
† One withdrew.

APPENDIX V

PROVINCIAL NORMAL AND MODEL SCHOOLS

I. Normal School, Hamilton

Staff, January, 1919.

S. A. Morgan, B.A., D.Pæd	Principal: Science of Education and Grammar.
F. F. Macpherson, B.A.	Master: English.
E. T. Seaton, B.A.Pæd	Master: Mathematics and School Management.
Frank E. Perney B.A., B.Pæd	Master: History and Geography.
G. O. McMillan, M.A., B.Pæd	Master: Science, Nature Study and Agriculture.
A. J. Painter	Instructor: Manual Training.
Julien R. Seavey	Instructor: Art.
Miss Clara E. Elliott	Instructor: Household Economics.
H. A. Stares, Mus. Bac	Instructor: Music.
*Sergt.-Maj. Jesse Skinner	Instructor: Physical Culture.
Oscar Main	Instructor: Writing.

* Granted leave of absence for Active Service, March 17, 1915.

Students admitted, Session 1918-1919

Male	4
Female	141
Total	145

II. Normal School, London

Staff, January, 1919.

John Dearness, M.A	Acting Principal: School Management and Science.
A. Stevenson, B.A., B. Pæd	Master: Science of Education and Literature
E. T. White, B.A., B.Pæd	Master: Mathematics and History.
G. W. Hofferd, B.A.	Master: Science and Geography.
T. E. Clarke, B.A.	Master: English.
Sugden Pickles	Instructor: Manual Training.
S. K. Davidson	Instructor: Art.
Miss A. B. Neville	Instructor: Household Economics.
C. E. Percy	Instructor: Music.
Albert Slatter	Instructor: Physical Culture.
J. W. Westervelt	Instructor: Writing.

Students admitted, Session, 1918-1919

Male	8
Female	175
Total	183

III. Normal School, North Bay

Staff, January, 1919

A. C. Casselman	Principal: History, History of Education, Reading.
J. C. Norris, M.A., B.Pæd.	Master: Mathematics and School Management.
J. B. McDougall, B.A.	Master: Science of Education and English.
H. E. Ricker, M.A.	Master: Science, Nature Study, Agriculture.
J. E. Chambers	Instructor: Manual Training.
C. Ramsay	Instructor: Art.
Miss Mayme C. Kay	Instructor: Household Economics.
Herbert Wildgust, L.L.C.M.	Instructor: Music.

Students admitted, Session, 1918-1919

Male	2
Female	89
Total	91

IV. Normal School, Ottawa

1. Staff, January, 1919

J. F. White, LL.D. ..... Principal ; School Management and English.
W. J. Karr, B.A., D.Pæd. ..... Master ; Science of Education and English.
J. W. Forbes, B.A. ..... Master ; Mathematics, History, and Hygiene.
G. A. Miller, M.A. ..... Master ; Science and Nature Study.
F. A. Jones, M.A., D.Pæd ..... Master ; Grammar, Geography, and History of Education
J. S. Harterre ..... Instructor ; Manual Training.
Roy F. Fleming ..... Instructor ; Art.
Miss C. E. Green ..... Instructor ; Household Economics.
T. A. Brown ..... Instructor ; Music.
C. Emery ..... Instructor ; Physical Culture.

Students admitted, Session, 1918-1919

Male	10
Female	140
Total	150

2. Staff of Normal Model School, Ottawa, January, 1919

C. E. Mark, B.A. ..... Headmaster, IV Form, Boys.
H. M. Leppard ..... III Form, Boys.
C. P. Halliday (on active service) ..... II Form, Boys (Mrs. F. Carter, B.A., acting)
Miss Muriel Brothers, B.A. ..... Pt. II, Boys.
Miss Rose Lynch. ..... I Form, Boys.
Miss A. G. Hanahoe ..... IV Form Girls.
Miss J. Foster ..... III Form, Girls.
Miss A. M. Delaney ..... II Form, Girls.
Miss E. Cluff, B.A. ..... Pt. II, Girls.
Miss M. R. Elliott ..... I Form, Girls.
Miss Lilias M. Henderson ..... Kindergarten-Primary.
Miss A. H. Baker ..... Kindergarten Directress.
Miss Gladys McGlenaghan ..... Kindergarten Assistant.
J. S. Harterre ..... Instructor ; Manual Training.
Roy F. Fleming ..... Instructor ; Art.
Miss C. E. Green ..... Instructor ; Household Economics
T. A. Brown ..... Instructor ; Music.
C. Emery ..... Instructor ; Physical Culture.
J. M. Fleury ..... Instructor ; French.

Number of pupils, 1918	392
Number of Kindergarten pupils, 1918	40
Total	432

V. Normal School, Peterborough

Staff, January, 1919

Duncan Walker, B.A. ..... Principal ; Mathematics.
Henry G. Park, B.A., D. Pæd ..... Master ; Science of Education and English.
Adrian Macdonald, M.A. ..... Master ; English.
Alonzo J. Mallill, B.A. ..... Master ; Science.
Elmer E. Ingall, B.A. ..... Master ; English.
A. F. Hagerman ..... Instructor ; Manual Training.
Miss Jessie C. McRae ..... Instructor ; Art.
Miss Elizabeth MacVannell ..... Instructor ; Household Economics.
Miss Marion R. Rannie ..... Instructor ; Music and Physical Culture.
John A. McKone ..... Instructor ; Writing.

Students admitted, Session 1918-1919

Male	6
Female	141
Total	147

VI. Normal School, Stratford

Staff, January, 1919

S. Silcox, B.A., D.Pæd	Principal:	Science of Education, Hygiene and Spelling.
J. W. Emery, B.A., D. Pæd	Master:	Science, Nature Study and Agriculture.
J. D. Campbell, B.A.	Master:	Mathematics, History of Education, History.
H. G. Martyn, B.A.	Master:	Grammar, Literature and Reading.
V. K. Greer, M.A.	Master:	Composition, Geography, School Management.
Sugden Pickles	Instructor:	Manual Training.
Mrs. Helen Mayberry	Instructor:	Art.
Miss A. Neville	Instructor:	Household Economics.
J. Bottomley, A.R.C.O.	Instructor:	Music.
Miss E. M. Cottle	Instructor:	Physical Culture, Writing, and Bookkeeping.

Students admitted, Session 1918-1919

Male	8
Female	159
Total	167

VII. Normal School, Toronto

1. Staff, January, 1919

*Wm. Scott, B.A.	Principal.	
S. J. Radcliffe, B.A.	Acting Principal:	School Management and Literature.
Wm. Prendergast, B.A., B.Pæd	Master:	Mathematics and History of Education.
David Whyte, B.A.	Master:	Science.
R. H. Walks, B.A	Master:	English.
S. J. Keyes, B.A., B.Pæd.	Master:	Science of Education and Reading.
S. J. Stubbs, B.A.	Master:	Grammar and Geography.
Miss Mary E. Macintyre	Instructor:	Kindergarten Principles.
Miss Ellen Cody	Instructor:	Kindergarten Assistant.
Jas. H. Wilkinson	Instructor:	Manual Training.
Miss A. Auta Powell	Instructor:	Art.
Miss Nina A. Ewing	Instructor:	Household Economics.
Mrs. Emma Macbeth	Instructor:	Needlework.
A. T. Cringan, Mus. Bac	Instructor:	Music.
Miss Miriam Thompson	Pianist.	
Mrs. Jean Somers	Instructor:	Calisthenics.
Capt. E. H. Price, S. of M	Instructor:	Drill.
A. F. Hare	Instructor:	Writing.
Mrs. M. W. Brown	Instructor:	Reading.

*On leave.

Students admitted, Session 1918-1919

Male	6	
Female	193	
		199
Kindergarten-Primary Students		17
Total		216

2. Staff of Normal Model School, Toronto, January, 1919

Milton A. Sorsoleil, B.A.	Head Master.
Miss M. K. Caulfeild	First Female Assistant.
Thornton Mustard	First Male Assistant.
Miss A. F. Laven	Assistant.
Francis M. McCordic	Assistant.
Miss C. E. Kniseley	Assistant.
John E. Montgomery, B.A.	Assistant.
Miss Jessie I. Cross	Assistant.
Miss Isabella Richardson	Assistant.
Miss Alice A. Harding	Assistant.
Miss Lilian B. Harding	Kindergarten-Primary.
Miss Mary E. Macintyre	Kindergarten Directress.
Miss Ellen Cody	Kindergarten Assistant.
Jas. H. Wilkinson	Instructor: Manual Training.
Miss A. Auta Powell	Instructor: Art.
Miss Nina A. Ewing	Instructor: Household Economics.
Mrs. Emma Macbeth	Instructor: Needlework.
A. T. Cringan, Mus. Bac.	Instructor: Music.
Miss Miriam Thompson	Pianist.
Mrs. Jean Somers	Instructor: Calisthenics.
Capt. E. H. Price, S. of M	Instructor: Drill.
Mrs. G. de Lestard	Instructor: French.

Number of pupils in 1918	467
Number of Kindergarten pupils in 1918	30
Total	497

VIII. Summary of Attendance at the Normal Schools

Normal Schools	Total attendance	Male students	Female students
Hamilton	145	4	141
London	183	8	175
North Bay	91	2	89
Ottawa	150	10	140
Peterborough	147	6	141
Stratford	167	8	159
Toronto	199	6	193
Totals	1,082	44	1,038

Kindergarten-Primary students, Toronto 18

NOTE.—A Model School is also conducted in the North Bay Normal School building.

APPENDIX W

LIST OF ASSOCIATE EXAMINERS AND CONTINUATION AND HIGH SCHOOL PRINCIPALS AND ASSISTANTS

I. Associate Examiners, 1918

Model Entrance, Lower School, Senior High School Entrance and Senior Public School Graduation Diploma

English Grammar: Margaret H. Abel, Belle Aitchison, Prudence M. Austin, C. G. Beck, Bessie Clothier, L. H. Corbett, Florence Ellerby, Roberta G. Gilray, Clara Hulse, Helena E. Johnston, Marion B. Lailey, Evelyn McDonald, Pearl McGregor, O. M. MacKillop, Mayme Montgomery, Helena G. Raitt, Margaret E. Ross, Mary G. Scanlon, Annie A. Smith, Rose I. Strang, Elizabeth J. Wallen, Elizabeth A. R. V. Wilson, E. May Wyman.

Literature: Alta-Lind Cook, Euphemia MacIntyre.

Spelling: J. H. Adams, Norma Gee, Annie H. Giles, Margaret Grills, Evelyn D. Kellock, R. G. McConachie, Mrs. Norma Rochat, J. W. Russell, Orethia Sailsbury, J. M. Simpson, Edith A. Traver.

Geography: Etta L. Barber, Olive M. Burns, J. L. Challinor, Georgia Davidson, A. C. Douglas, Ethel C. Eaton, I. Mae Finch, Mary A. Fraser, Leah A. Gillard, S. A. Hitsman, J. Cecilia Horan, Margaret A. Ionson, Margaret E. Lutman, R. J. McMillan, Susie H. Manson, Lena Millard, M. J. O'Neil, H. C. Pugh, Julia Richardson, H. F. Schmietendorf, Jessie M. Scott, Edna E. Staples, L. Stevenson, Mary Strathdee, R. D. Webb, M. J. Wilker.

Art: H. E. Bicknell, Emma M. Bottoms, Charles S. Buck, Irene P. Davis, Rebecca S. Edwards, Roxie Ellis, Elva Gould, C. W. Horton, Agnes M. Johnston, Elva Locklin, Bessie McCamus, Lillian MacIntyre, Nellie L. Mahon, Marcella T. Marshall, Maude Miller, S. W. Perry, Josephine E. Redmond, Mabel Van Duzer, Julia Weir.

History: Mabel E. Allen, Elsie K. Beaman, R. J. Blake, James Cameron, J. Collins, Eva M. Coulter, Magdalene De La Mater, S. G. Devitt, Grace Edwards, J. W. Fraser, Helen M. Grieve, Annie Guilfoyle, J. I. Hutchinson, Florence B. Ketcheson, Eva W. King, Elizabeth McNamara, Henrietta E. Mazinke, Christina H. Morton, Edith A. Murphy, Olive H. Murray, Louise E. Ney, Ida M. Oldham, Lucy Saunders, Allie Stinson, Cassie Wright.

Composition: Ada Menbennick.

Elementary Science: A. E. Allin, M. H. Ayers, J. A. Bell, J. M. Bell, G. L. Brackenbury, G. W. Bunton, Muriel Daley, Letitia E. Durnin, H. W. Gerhardt, R. S. Hamilton, V. R. Henry, A. D. Hone, N. A. Irwin, W. A. Jennings, L. R. McCrimmon, T. W. Martin, J. L. Medcof, Flora E. Morgan, C. I. Nelson, Mabel I. Pacey, Eva M. Ranson, Rena C. Scott, D. G. Smith, J. H. Stewart, Ruple Taite, Mabel R. White, Margaret E. White, Clara Young.

Writing: Lillie C. Anderson, J. J. Bailey, Sarah J. Baker, D. M. Clark, Hazel I. Elcoat, Myrtle E. Fritz, A. F. Hare, Hilda M. Hindson, Mabel Howie, Edith Parlee, Eva A. Power, C. Irene Pridham, D. M. Walker.

Book-keeping and Writing: J. A. Dickinson, Olive Fritz, G. A. Lucas, Kate Richardson, Margaret Smith, Alice B. Stone.

Household Science: Clara E. Elliott, Mary C. Macpherson, A. Enid Robertson, Lila K. G. White.

Arithmetic: J. G. Adams, R. H. Archibald, Alice I. N. Ball, R. F. Bennett, C. S. Browne, B. W. Clarke, J. T. Curtis, Rita Fleming, Viva M. Hicks, Walter Keast, C. H. McGee, Ada A. Miller, Margaret K. Munro, W. H. Rogers, F. T. Schooley, Elizabeth A. Tomkins, E. T. Young.

Algebra and Geometry: F. B. Clarke, J. M. MacKay.

MIDDLE SCHOOL

English Composition: H. E. Collins, Winnifred Dengate, Jessie Foster, Ethel Gibson, Christina C. Grant, A. E. MacLean, Mrs. Ada Pattee, Harriet A. Patterson.

English Literature: Mary Bain, H. W. Brown, Eleanor L. Clarke, Wilhelmina L. Colbeck, W. J. Feasby, Margaret Forester, Aletha L. Hotson, John Jeffries, E. W. Jennings, T. C. Somerville, Annie M. A. Taylor, Mabel N. Trenaman, Viola Whitney.

Ancient History: Elsie Affleck, Lillian M. Allen, J. G. Althouse, Marjorie M. Colbeck, J. H. Dolan, Mabel Farrington, Viola Gilfillan Stella A. Jordan, S. Winnifred Nichol, Aileen Noonan, G. H. Reed, Margaret C. Ross, Annie E. Rowntree, W. J. Salter, Minerva Stothers.

British and Canadian History: Mrs. Irene M. Brogden, W. A. Campbell, Mrs. C. T. Casselman, Jessie S. Cattanach, May Cryderman, Helen I. Dafoe, A. Gilmour, Lottie E. Hamer, E. A. Hardy, Claire Hitchon, J. Keillor, M. Irene McCormack, A. D. Norris, Frances A. Robinson.

Algebra: J. L. Cornwell, C. L. Crassweller, J. H. Davidson, R. Gourlay, T. Hobbs, G. M. James, W. E. Rand, E. E. Snider.

Geometry: Florence J. Adams, E. W. Durnin, B. F. Howson, Frances V. Johnston, A. N. Myer, J. H. Packham, J. F. Ross, W. A. Skirrow, E. E. Wood.

Physics: R. A. Brunt, W. A. Dent, F. A. Flock, H. H. Graham, W. H. H. Green, A. C. Hazen, A. D. Hone, Catherine I. Hyde, J. W. Kelly, Mrs. E. W. Kerr, Jessie F. Lawrence, H. Loucks, P. MacKichan, M. Augusta MacLeod, W. J. Saunders, F. Sine, W. B. Wyndham.

Chemistry: E. T. Bell, G. H. Bielby, A. B. Cooper, J. W. Firth, H. J. Heath, C. F. Marshall, W. H. Martin, L. P. Menzies, L. Might, W. J. Moffat, E. Morrison, A. M. Patterson, Mary C. Tucker, S. Wightman, Edna J. Williams.

Latin: C. L. Barnes, W. Clarke, Rosalie Dugit, A. A. Dundas, D. A. Glassey, A. G. Hooper, H. W. Kerfoot, F. H. Lingwood, Annie K. McGregor, C. A. Mayberry, J. H. Mills, W. E. Murdock, Winifred Ovens, Peter Perry.

Art: H. W. Brown, T. W. Kidd, S. W. Perry.

UPPER SCHOOL

English Composition: A. W. Burt, T. Carscadden, Eleanor D. Odlum.

English Literature: Elizabeth C. Henry, Kate C. Skinner, Gladys S. Story, Ada L. Ward.

History: J. W. Charlesworth, Cora E. Hewitt, Laura L. Jones, G. W. Malcolm.

Classics: A. E. Coombs, I. Kathleen Cowan, Margaret Cowan, D. M. Grant, C. S. Kerr, E. A. Miller, P. F. Munro, W. J. Twohey.

French: Mabel M. Graeb, E. S. Hogarth, Mary V. McWhorter, L. R. Whitely.

German: Margaret E. Carman, F. H. Clarke.

Science: P. W. Brown, A. Cosens, S. J. Courtice, T. J. Ivey, W. J. McMillan, L. A. Marlin, J. R. Moore, E. Pugsley, J. H. Sexton, W. Smeaton, L. E. Staples, P. M. Thompson.

Mathematics: W. J. Lougheed, A. M. Overholt, R. C. Rose, G. W. Rudlen, W. W. Rutherford, R. Wightman, J. S. Wren.

JUNIOR MATRICULATION

Literature: W. G. Anderson, Marie V. Bibby, A. St. J. Furnival, Margaret M. S. Hall.

Composition: William Kemp, Enid McGregor, Ethel L. Ostrom.

British and Canadian History: A. G. Dorland, G. L. Gray, Hazel I. Reid, Agnes Vrooman, Helen C. Walker.

Ancient History: A. A. Affleck, Hilda C. Smith, Madeline C. Young.

Chemistry: J. P. Hume, F. A. Stuart.

Physics: J. L. MacLaurin, J. L. Mitchener.

Geometry: A. R. Girdwood, F. O. McMahon, A. C. McPhail, I. T. Norris, J. G. Workman.

Algebra: F. R. Lishman, G. R. Smith, Rebecca Stenhouse.

Classics: J. S. Bennett, H. W. Bryan, G. E. Evans, J. A. Freeman, D. E. Hamilton, Hally Johnston, H. M. McCuaig, S. F. Passmore, Gertrude Pringle, L. C. Smith.

French: Harriett E. Black, Effie M. Bunnell, Annie B. Francis, N. R. Gray, Maud Hawkins, Elizabeth Henstridge, Maybelle M. Laing, J. S. Lane, A. N. McEvoy, Mrs. Edith McIntyre, H. S. McKellar, Eleanor Nugent, Marguerite O'Connell, G. S. Otto, W. H. Williams, Alice Willson.

German: N. L. Murch, C. E. Reaman, R. Reid, H. B. Tapscott.

II. List of Principals and Assistants of Continuation Schools, January, 1919

Post Office and Name of School	Names and professional qualifications of Teachers (Unless otherwise stated, the teacher is the holder of a Permanent First Class or a High School Assistant's certificate.)	Degrees	Specialists	Elementary and Intermediate Certificates (In the case of Agr. & Hor. the Certificate is Intermediate.)	Date of appointment	No. of years' experience in a High or Continuation Sch.	No. of years in a Public School	Salaries		
								Principal	Male Assistants	Female Assistants
								$	$	$
Acton	Stewart, William H.				1903	15½	15	1,350	.....	.....
	Baker, Pearl Z.			Art, Phys. Cul.	1914	8½	2½	.....	.....	1,000
Agincourt, 14 Scarboro'	Elmer, Margaret T. **	B.A., Queen's			1918	3	1½	1,000	.....	.....
Alvinston	Carbert, Robert H.			Phys. Cul.	1911	10½	3	1,350	.....	.....
	Watson, M. Alberta (Int.)		Art		1917	1½	1	.....	.....	725
Arkona	Principal to be appointed.				....	....	....	.....	.....	.....
Ayr	Chisholm, Renw'k J. *			Phys. Cul.	1915	5½	....	1,200	.....	.....
	Wells, Dorothy (Int.)			Phys. Cul.	1919	....	1	.....	.....	800
Bancroft	Keenan, Edward J.	B.A., Queen's		Phys. Cul.	1914	12	2½	1,400	.....	.....
	Gillham, Estelle M. (Int.)			Art	1917	1½	1	.....	.....	800
Bath	Morgan, Flora E.			Phys. Cul.	1915	6½	3	950	.....	.....
	Garvey, Joseph L. (Int.)				1918	½	2	.....	725	.....
Beaverton	Innes, Alexander R.			Phys. Cul.	1918	30½	5½	1,500	.....	.....
	McRae, Alice A. (Int.)	B.A., Tor.		Art	1917	1½	....	.....	.....	700
Beeton	Hammell, Ethel E. M.	B.A., Tor.	Eng. & Hist. (Int.)		1918	1½	9	1,200	.....	.....
	King, Annie A.				1918	½	2	.....	.....	750
Belmont, U 11, S. Dorchester	MacKillop, Oliver M.			Phys. Cul.	1913	5½	4	1,400	.....	.....
	Moore, Kathleen V. (Int.)	B.A., Queen's	Mods. & Hist.	Art	1918	1	....	.....	.....	750

Blenheim	Mackenzie, Elizabeth S. ..*			Phys. Cul.	1916	9½	1	1,200	
	Hewitt, Benjamin H.			Art	1918	½	3		1,100
Blind River	MacIntyre, Anna M.		Phys. Cul. (Int.)	Art	1918	1	2½	1,000	
	McGibbon, Hazel M.			Art	1916	5	½		850
†Blyth	Money, Mabel L.		Art (Int.)		1916	2½	5	1,150	
Bothwell	Campbell, Hughena M. ....*		Phys. Cul. (Int.)		1919	9	½	1,100	
	Campbell, John J. ....(Int.)				1918	1			700
Bowesville, 5 Gloucester	Clement, Isabel ....** (Int.)			Phys. Cul.	1918	2	5½	850	
Bridgeburg	Thompson, Howard E.		Phys. Cul. (Int.)		1917	4½	2	1,800	
	Chambers, Josephine..(Int.)	B.A., Tor.		Art, Phys. Cul.	1914	5	½		1,000
Bruce Mines	Joynt, James H.			Phys. Cul.	1917	5	4½	1,200	
	Powell, James A. .....(Int.)	B.A., Queen's		Phys. Cul.	1918	½			1,000
Brussels	Scott, Benjamin S.			Phys. Cul.	1914	8	3	1,400	
	Morris, Winifred		Art (Int.)	Phys. Cul.	1918	4½	4½		800
Burk's Falls	Eaton, Ethel C.			Art, Phys. Cul.	1917	5½	2	1,100	
	McIntosh, Jean .....(Int.)				1918	1½			900
Burlington	Smith, Daniel E.	B.A., Tor.		Agr. & Hor., P.C.	1909	15½	2	1,700	
	Newham, Eveline J. ..(Int.)	B.A., Tor.	Art		1918	1½			1,000
	O'Neil, Jessie .....(Int.)	B.A., Tor.		Phys. Cul.	1918	½			900
Cannington	Bigg, Edmund M. .....‡	M.A., Tor.	Sci.	Phys. Cul.	1917	45		1,200	
	Mullins, Helen M. ....(Int.)	B.A., Tor.		Phys. Cul.	1918	½			1,000
Cardinal	Ranson, Eva M.			Art	1913	8	3	1,050	
	O'Reilly, Bridget T....(Int.)	B.A., Tor.	Mods. & Hist.	Phys. Cul.	1917	1½			750
Carp, 3 Huntley	Stewart, Annie J. .....*	B.A., Queen's		Phys. Cul.	1911	8½	1½	1,100	
	Gillan, Kathleen M.				1917	1½	2		750
Chapleau, 1 Chapleau	Wallen, Wilfred B. .....*			Phys. Cul., Art	1918	3½		1,400	
	Ryan, Gertrude	B.A., Tor.			1918	2½			1,050

*Endorsed for Principalship. **Temporary certificate as Principal.

‡High School Principal's certificate. †One teacher devotes full time and one half time to Continuation School work.

List of Principals and Assistants of Continuation Schools, January, 1919—Continued

Post Office and Name of School	Names and professional qualifications of Teachers (Unless otherwise stated, the teacher is the holder of a Permanent First Class or a High School Assistant's certificate.)	Degrees	Specialists	Elementary and Intermediate Certificates (In the case of Agr. & Hor. the Certificate is Intermediate.)	Date of appointment	No. of years' experience in a High or Continuation Sch.	No. of years in a Public School	Salaries		
								Principal	Male Assistants	Female Assistants
								$	$	$
Claremont, 15 Pickering.	Wilker, Milton J.		Phys. Cul. (Int.)		1914	4½	2	1,100	.....	.....
	Dolbear, Calla C. ....(Int.)		Art		1918	2		.....	.....	725
Clifford	Switzer, Josie E.				1918	7½	4	1,000	.....	.....
	Edge, Alix M. .....(Int.)			Art	1918	¾	1	.....	.....	700
Cochrane	Burwash, Miriam L.** (Int.)	B.A., Tor. ...		Phys. Cul.	1918	1	1½	900	.....	.....
Coldwater	Clark, Joseph C. .....‡	B.A., Tor. ...	Class.		1915	21	2½	1,100	.....	.....
	Hartry, Norma I			Phys. Cul.	1918	....	4	.....	.....	900
Comber, 4 Tilbury W.	McCoig, Mary Alice			Phys. Cul., Art .	1918	3	3½	1,000	.....	.....
	Gaiser, Elsie M. .....(Int.)	B.A., Tor. ...	Mods. & Hist. ..	Phys. Cul.	1917	1½	....	.....	.....	900
Cookstown, 5 Essa	Maxwell, Mabel I.	B.A., Queen's		Art, Phys. Cul. .	1917	2½	2	1,100	.....	.....
	Gardiner, M. Mae	B.A., Queen's		Phys. Cul.	1917	3½	....	.....	.....	900
Creemore	MacKay, Hector H.* ..(Int.)			Phys. Cul.	1917	1½	1	1,000	.....	.....
	Wallace, Verna M.		Art .....(Int.)		1918	2½	....	.....	.....	850
Delaware, 2 Delaware ...	Conway, Irene E.			Art	1916	9	3	1,000	.....	.....
Delhi	Knowles, Anna V.				1918	½	6	1,000	.....	.....
§Drayton	Clark, George A.			Agr. & Hor.....	1913	13½	6	1,380	.....	.....
	Ellerby, Florence Edna			Phys. Cul., Art .	1913	5½	4	.....	.....	850

Dresden	Hicks, Evalyn G. * Wilson, Jean R.			Art, Phys. Cul. Art, Phys. Cul.	1917 1918	3½ ½	 3	1,000		700
†Drumbo, 11 Blenheim	McDowell, Jennie			Art	1918	3½	10	1,000		
Dryden	Roberts, Mabel		Art .....(Int.)		1918	2½	3	1,400		
Eganville	White, Lloyd Giles, Annie H.	B.A., Queen's		Phys. Cul. Art	1917 1918	1½ 5½	6 3½	1,200		700
Eganville (R. C. S. Sch.)	Maher, Margaret (Sr. Mary Aurelia) Griffin, Elizabeth H. (Sr. St. Dorothy)		Art	Phys. Cul.	1914 1918	4½ ½	12½ 9	800		700
Elmira	Rendall, Stanley D. * Abel, Margaret H.			Phys. Cul. Art, Phys. Cul.	1919 1917	3 9	.... 2½	1,300		850
Elmvale, 5 Flos	Miller, Erle G. Laughlin, Ruby J. ....(Int.)			Phys. Cul. Art, Phys. Cul.	1918 1918	1½ 1½	4	1,200		900
Ennismore, 4 Ennismore	Young, Clara * McNamara, Elizabeth			Phys. Cul. Phys. Cul., Art	1916 1916	6 5½	....	1,075		820
†Erin	Guilfoyle, Annie *			Art	1917	8½	1	1,050		
Exeter	Haviland, Hugh J. ‡ Ross, Edith I. ....(Int.) Medd, Josie B. H. ....(Int.)	B.A., Tor. B.A., Queen's	Classics Art	Ph. Cl., Ag. & H. Phys. Cul. Phys. Cul.	1918 1918 1918	18½ ¾ 1½	.... ¼ ¾	1,650		900 800
Fenelon Falls	Nesbitt, Mabel E. ‡ Taylor, Pearl M. ....(Int.)	B.A., Queen's	Phys. Cul. (Int.)	 Art	1917 1918	6½ ½	1 1	1,200		750
Finch	Armstrong, Eunice Daley, Muriel M.			Art Phys. Cul.	1911 1913	9½ 5½	2½ 1½	1,075		975
Fingal, 12 Southwold	Hicks, Viva M. * Gliddon, Mildred E.			Art Phys. Cul.	1915 1918	10½ 1½	1 3	1,100		800
Frankford, 11 Sidney	Bell, John M. Anderson, Nellie L.		 Art .....(Int.)	Phys. Cul.	1915 1915	3½ 9½	31 3	1,200		750

*Endorsed for Principalship.
**Temporary certificate as Principal.
‡High School Principal's certificate.

†One teacher devotes full time and one, half time to Continuation School work.
§ Two teachers devote full time and one, half time to Continuation School work.

List of Principals and Assistants of Continuation Schools, January, 1919—Continued

Post Office and Name of School	Names and professional qualifications of Teachers (Unless otherwise stated, the teacher is the holder of a Permanent First Class or a High School Assistant's certificate.	Degrees	Specialists	Elementary and Intermediate Certificates (In the case of Agr. & Hor. the Certificate is Intermediate.)	Date of appointment	No. of years' experience in a High or Continuation School	No. of years in a Public School	Salaries: Principal	Salaries: Male Assistants	Salaries: Female Assistants
								$	$	$
Gore Bay	Norton, M. Maud		Art	Phys. Cul.	1917	9	8	1,200		
	McGregor, Helen M....(Int.)	B.A., Tor.	Eng. & H., Ph. Cl.		1917	1½	1			875
Grand Valley	MacIntyre, Lillian		Art ....(Int.)	Phys. Cul.	1918	5	2	1,150		
	Fennell, Rena L.			Phys. Cul.	1918	½	2			750
Hanover	Magee, James A.			Phys. Cul.	1905	15½	2	1,650		
	Turvey, Ina M.		Art	Phys. Cul.	1918	4½				800
Harrow, 9 S. Colchester	Beaman, Elsie K. *		Phys. Cul.		1917	5½		975		
	Mullette, Fernia H.			Art	1919	2½	1			900
Havelock	Davidson, John ‡	M.A., LL.B., Tor	Classics		1917	37½	3	1,500		
	Brewster, Gladys I.			Phys. Cul., Art	1914	4½				800
Highgate	Burke, Alex.				1913	24½	13	1,350		
	Brigham, Olvetta			Art	1917	9½	4½			900
Huntsville	Bernath, Alfred C.				1900	17½	5½	1,650		
	Peregrine, H. May			Art	1912	11	2			900
Jarvis	Smith, Annie A.			Phys. Cul., Art	1917	4½	3½	1,000		
Jockvale, 10 Nepean	O'Donohue, John A.	B.A., Queen's		Art	1917	11½	3	850		
Kars, U. 3 North Gower	Waddell, Thomas K.** (Int.)	B.A., Queen's			1919	1		1,100		

Keewatin	Adams, John M.			Phys. Cul.	1918	7	8	1,600		
	MacPherson, Rose			Art, Phys. Cul.	1918	½	2			900
Kenmore, 15 Osgoode	Keough, Maggie		House. Sci.	Art	1918	2½	5½	1,000		
	Byfield, Gwendolyn C.	(Int.) B.A., Tor.		Phys. Cul.	1918	1	1			750
†Kinburn, 11 Fitzroy	Kenyon, Grace	B.A., McM.	E.&H.,Class.	(Int.)	1918	½	3	1,000		
Lakefield	Simpson, John M.	B.A., Queen's	Phys. Cul.		1916	9½	9	1,300		
	Crowe, Marie	(Int.) B.A., Tor.	Art		1918	½				800
Lanark	Beatty, Robert	(II Class)			1889	29½	9	900		
	Houze, Margaret	(Int.)			1918	½	1			750
Lansdowne, 9 Leeds and Lansdowne Front	Squire, George C.**	(Int.)			1919		1	900		
Little Current	Norton, Ida E.		Art	(Int.)	Phys. Cul.	1917	11	5	1,100		
Lucknow	Doupe, Henry A.			Art	1913	10½	2½	1,400		
	Williams, G. Evelyn	(Int.) B.A., Tor.	Mods. & Hist.		Phys. Cul.	1918	½			900
Manitowaning, 2 Assiginack	Reid, Neil D.	B.A., Tor.				1919	2	2	1,000	
Manotick, 18 Osgoode	Dorrance, Annie V.		Phys. Cul.	(Int.)		1917	1½	6	900	
Massey	King, Myrtle I.				Phys. Cul.	1917	1½	2	1,000	
Maxville	Iveson, Sadie E.	B.A., McM.			Phys. Cul.	1915	6	3	1,100	
	Smyth, Alice C.	(Int.)				1918	½	2		800
Melbourne, U. 16 Caradoc	Robinson, Wm. G.	(II Cl.)				1900	18½	5	1,050	
	Bole, Abbie M.	(Int.) B.A., Queen's			Phys. Cul.	1918	1½			850
Merlin, U. 5 Raleigh	Stinson, Allie		Phys. Cul.	Art		1918	4	6	1,050	
	O'Brien, Wilfred E.	(Int.)				1919		½		850
Merrickville	Payette, Henry J.***	(Int.) B.A., Tor.				1919			1,000	
	Grant, Cora					1918	½	3		700

*Endorsed for Principalship.
‡High School Principal's certificate.
†One teacher devotes full time and one, half time to Continuation School work.
**Temporary certificate as Principal.
***Acting Principal.

List of Principals and Assistants of Continuation Schools, January, 1919—Continued

Post Office and Name of School	Names and professional qualifications of Teachers (Unless otherwise stated, the teacher is the holder of a permanent First Class or a High School Assistant's certificate.)	Degrees	Specialists	Elementary and Intermediate Certificates (In the case of Agr. & Hor. the Certificate is Intermediate.)	Date of appointment	No. of years' experience in a High or Continuation Sch.	No. of years in a Public School	Salaries		
								Principal	Male Assistants	Female Assistants
								$	$	$
Metcalfe, 11 Osgoode	Aylsworth, Bessie C.				1918	3	3	1,000		
	White, Edna M. (Int.)			Art	1917	1½	1½			775
Millbrook	Hampton, David (II Cl.)				1883	22½	25	825		
	Davidson, Anna K. (Int.)	B.A., Tor.		Phys. Cul.	1918	½				800
Milton	Marcellus, J. Ernest ‡	B.A., Queen's		Phys. Cul.	1912	12	2	1,700		
	Fleming, Jean H.		Art (Int.)		1914	7	½			1,000
	Arnold, Lillian B. (Int.)				1919	1				750
Mount Albert, 13 East Gwillimbury	Campbell, Mabel				1918	4½	4	1,200		
	Grindell, Hazel (Int.)			Art	1918	½	1			750
Mount Brydges, 15 Caradoc	Davidson, Georgia	B.A., West.		Art, Phys. Cul.	1918	4	4	1,000		
†Navan, 3 Cumberland	McKenna, Jessie	B.A., Queen's	Eng. & H. (Int.)	Phys. Cul.	1918	½	2½	1,000		
New Hamburg	Smith, James M.			Phys. Cul.	1908	10½	6	1,600		
	Quinlan, Violet May (Int.)			Art	1917	1½	1			725
New Liskeard	Dobbie, Isabella E.			Agr. & Hor.	1911	10	18	1,500		
	Mitchell, May		Phys. Cul. (Int.)	Art	1918	10	5½			1,000
†New Toronto	Mole, William H.	B.A., Tor.		Phys. Cul.	1917	1½	5½	1,750		
North Augusta, 17 Augusta	Forester, Margaret ‡	B.A., Queen's		Phys. Cul., Art	1917	4½	7½	1,000		
	Wark, Amy L. (Int.)			Phys. Cul.	1917	1½				700

...rth Gower, 6 N. Gower.	White, Margaret E.			Phys. Cul., Art	1916	4½	2	1,050		
	Lee, Gertrude M.			Phys. Cul.	1916	2½	1			850
Norwich	Young, Gordon			Phys. Cul.	1917	1½	8	1,150		
	Nealon, Matthew J. ..(Int.)	B.A., Tor.			1919				900	
Odessa, 13 Ernestown	Judge, Albert E. *	B.A., Queen's		Phys. Cul.	1916	2½		1,000		
	Mitchell, Jessie A. ‡	B.A., Tor.	Art ....(Int.)		1918	18	9			800
Oil Springs	Ryerson, Catherine G. S. ..*	M.A., Tor.	Sci. ....(Int.)	Art	1918	4		900		
	Geddes, Mary M.			Art	1918	½	2			850
Orono, 12 Clarke	Costin, Carrie	B.A., Queen's		Phys. Cul.	1918	2½	3	1,000		
	Adams, Edith ....(Int.)			Phys. Cul.	1918	1½	1			800
Paisley	Kehoe, Martin B.			Phys. Cul.	1919	3	2	1,300		
	Rodger, Mary L. ....(Int.)			Art	1917	1½	2			800
Pakenham, 4 Pakenham	White, Mabel R. *			Phys. Cul., Art	1918	7		1,200		
	Wilson, Laura E.				1918	½	3			800
Palmerston	Anglin, Sara				1913	10½	10	1,400		
	Mitchell, Lillian Grace		Art....(Int.)	Phys. Cul.	1916	5½				800
Plattsville, 24 Blenheim	Bell, Mary *			Phys. Cul.	1918	3½	1	1,100		
	Hunter, Lily P. ....(Int.)	B.A., Tor.	Art	Phys. Cul.	1917	1½				750
Port Burwell, 2 Bayham	Hicks, Frederick M.			Phys. Cul.	1916	12½	2½	1,200		
	Stewart, Margaret E.		Art ....(Int.)		1918	2½	4½			800
Port Colborne	Cameron, Allan A.			Phys. Cul.	1915	13½	3	1,500		
	Cowan, Anna K. ....(Int.)		Art	Phys. Cul.	1918	1½	1			800
Powassan	Johnston, Mabel C.	B.A., Queen's			1918	2	2½	1,000		
†Princeton, U. 21 Blenheim	Barnby, Vera E.		Phys. Cul. (Int.)		1917	2½	2	1,000		
Richmond	Johnston, Helena E. ....*			Art	1918	7½	½	900		
Ridgeway, 11 Bertie	Woodley, Arthur M.			Agr. & Hor.	1913	11½	7	1,800		
	Houser, Evelyn G.		Art ....(Int.)	Phys. Cul.	1917	1½	3			800

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List of Principals and Assistants of Continuation Schools, January, 1919—Continued

Post Office and Name of School	Names and professional qualifications of Teachers (Unless otherwise stated, the teacher is the holder of a Permanent First Class or a High School Assistant's certificate.)	Degrees	Specialists	Elementary and Intermediate Certificates (In the case of Agr. & Hor. the Certificate is Intermediate.)	Date of appointment	No. of years' experience in a High or Continuation Sch.	No. of years in a Public School	Salaries		
								Principal	Male Assistants	Female Assistants
								$	$	$
Ripley, 10 Huron	Strathdee, Mary			Art	1914	4½	18	1,050		
	Gilfillan, Viola ‡	M.A., Tor.		Phys. Cul.	1914	4½				950
Rodney	Yorke, Chas. G. ‡	B.A., Queen's	Phys. Cul. (Int.)		1914	4½	4½	1,250		
	Miller, Ada A.			Art, Phys. Cul.	1914	4½	2½			800
Russell, 2 Russell	Collins, James	B.A., Tor.	Art (Int.)		1914	4½	31½	1,130		
	Maitland, Jessie H.	B.A., Queen's	Eng. & His. (Int.)	Phys. Cul.	1917	2½				750
St. George	Gilchrist, John	B.A., Queen's			1916	2½	4	1,400		
	Shields, Jean S.	B.A., Queen's		Art	1916	3½	2			1,000
Schomberg, 14 King	Tierney, Olive		Art (Int.)		1917	3½	3	1,000		
Scotland, U. 18 Burford and 3 Oakland	Blayney, Lela F.			Phys. Cul.	1918	1½	3	1,000		
	Howe, Isobel J. (Int.)				1918	½	1			750
Southampton	Douglas, Adam C.	B.A., Queen's		Phys. Cul.	1916	6	2½	1,200		
	Snider, Madeleine G. (Int.)	B.A., Tor.		Phys. Cul.	1919					900
South Mountain, 1 Mountain	Smith, James T. **			Phys. Cul.	1919	2½		1,000		
	Elliott, Jessie C. (Int.)			Phys. Cul.	1917	1½	1			900
South Porcupine, U. 1 A. Tisdale	Principal to be appointed.									
Spencerville, 15 Edwardsburg	Burton, Violet (Int.) **	B.A., Queen's	Class.		1918	½	1	1,000		
	Alkerton, Nancy (Int.)			Art	1918	½	2			750

Springfield	McKillop, Jessie A.		Phys. Cul. (Int.)		1917	1½	3	1,200		
	Moran, Harry P. (Int.)				1919		2		1,000	
Stayner	Burchill, Mrs. Jean S.			Phys. Cul.	1918	13½	10	1,200		
	Swallow, Margaret B. (Int.)			Art	1917	1½				800
Stella	Buchanan, Luella M. **(Int.)				1918	½	2	800		
	Darby, Laura W. (Int.)	B.A., Mt. Allis.			1918	½				750
Stouffville	Stouffer, Archibald				1918	½	2	1,000		
	Knapp, Elizabeth E.			Art, Phys. Cul.	1918	½	4			800
Sturgeon Falls	Parr, Sarah E.		Ph. C. (Int.) Art		1916	9	8	1,200		
Sutton	McDonald, Margaret D. ...*			Phys. Cul.	1917	3½	1	1,075		
	Macdonald, Margaret J. (Int.)			Art	1918	½	1			750
Tamworth, 3, 6 and 10, Sheffield	Fletcher, Douglas R.			Phys. Cul.	1915	4	3½	1,150		
	Johnston, Leila G.		Art	Phys. Cul.	1916	2½	3			700
Tara	Roszel, John M.				1918	4½	15	1,450		
	Grieve, Bessie M.			Phys. Cul.	1918	½	4			750
Tavistock	Grainger, Luella	B.A., Queen's			1918	6½	2	1,300		
	Bell, Jessie M.	B.A., Tor.	Mods. & Hist.	Art, Phys. Cul.	1916	8½	1½			850
Teeswater	Thompson, Harry C.				1912	6½	3	1,100		
	Hicks, Meryl E.			Phys. Cul., Art	1917	3	½			800
Thamesville	Philp, Florence H. ...*			Phys. Cul.	1918	3½		1,200		
	Walls, Lillian				1919		3			800
Thessalon	Cavanagh, Theresa P. M.			Art, Phys. Cul.	1917	3½	2	1,100		
	McLean, William C. (Temp.)				1919				1,000	
Thornbury	Summers, Christopher			Ph. Cl., Ag. & H.	1918	8½	5	1,300		
	Hartman, Helen (Int.)			Art, Phys. Cul.	1916	2½	1			750
Thorndale, 8 W. Nissouri	Austin, Prudence M.		Art	Phys. Cul.	1918	4½	3	1,200		
	Twiss, Countess L. (Int.)	B.A., McM.	Classics, Art	Phys. Cul.	1917	1½	1			900

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List of Principals and Assistants of Continuation Schools, January, 1919—Continued

Post Office and Name of School	Names and professional qualifications of Teachers (Unless otherwise stated, the teacher is the holder of a Permanent First Class or a High School Assistant's Certificate.)	Degrees	Specialists	Elementary and Intermediate Certificates (In the case of Agr. & Hor. the Certificate is Intermediate.)	Date of appointment	No. of years' experience in a High or Continuation Sch.	No. of years in a Public School	Salaries		
								Principal	Male Assistants	Female Assistants
								$	$	$
Tilbury	MacNaughton, Evelyn I.		Art (Int.)	Phys. Cul.	1917	1½	2	1,000		
	Armstrong, Mabel R.			Phys. Cul.	1918		2			750
Tottenham	Clarke, Frank B.			Phys. Cul.	1911	15½	6	1,250		
	Cawsey, Clare E. (Int.)	B.A., Tor.	Art		1917	1½				725
Warkworth, 2 Percy	Sillers, M. Roberta	B.A., Queen's		Phys. Cul.	1916	2½	4	1,200		
	Chown, Elizabeth (Int.)	B.A., Queen's	Phys. Cul.		1918					900
Webbwood	Warwick, Bruce D.*			Phys. Cul.	1919	2	2	1,125		
Westboro', 2 Nepean	Acres, Mrs. Mima A. ‡	B.A., Queen's		Art	1918	18	8	1,750		
	Campbell, Muriel F.			Phys. Cul.	1919	½	2½			800
West Lorne	Meadows, Persie	B.A., Queen's		Art	1918	7½	4	1,200		
	Gendron, Muriel (Int.)	B.A., Tor.		Phys. Cul.	1918					750
Westmeath, 2 Westmeath	McLachlan, Christena	B.A., Queen's		Phys. Cul.	1917	1½	4	1,100		
†Westport	Stewart, Bertha R.			Ph. Cul., H. Sci.	1917	3½	7	1,200		
†Westport (R. C. S. Sch.)	McIntosh, Catherine (Sr. St. Andrew) (H. Class)	B.A., Queen's		Art	1888	30		800		
†Winona, 1 Saltfleet	VanDuzer, Mabel L. ‡	B.A., Tor.	Art		1914	7½		1,200		
Wroxeter	Mahon, Nellie L.		Art, Ph. C. (Int.)		1918	6	4	1,000		
	Sanderson, Elizabeth M.			Art, Phys. Cul.	1918	½	2			700

†One teacher devotes full time and one, half time to Continuation School work. ‡High School Principal's certificate.

SUMMARY, CONTINUATION SCHOOLS, JANUARY, 1919

Number of Schools, Sex and Number of Teachers, and Percentages

Schools

Three-teacher Schools	3
Two-teacher Schools	97
One-teacher Schools	33
*Number of Schools	133
†Decrease for the year	4

Teachers

Men	65
Women	169
Total	234

Percentages

January, 1919:	Men,	27.77;	Women,	72.22
" 1918:	"	25.72;	"	74.27
" 1917:	"	28.63;	"	71.36
" 1916:	"	31.93;	"	68.06
" 1915:	"	30.80;	"	69.19
" 1912:	"	39.44;	"	60.55

Salaries

Highest Salary, Principals	$1,800
" " Male Assistants	1,100
" " Female "	1,050
Average Salary, Principals	1,171
Increase for the year	54
Average Salary of Assistants	826
Increase for the year	48
Average Salary all Teachers	1,019
Increase for the year	48
Average Salary, Male Assistants	909
Increase for the year	97
Average Salary, Female Assistants	819
Increase for the year	43

University Graduates, Specialists, etc.

Graduates	72
Non-Graduates	162
Percentage of Graduates, Jan., 1919	30.76
" " " 1918	31.95
Percentage of Non-Graduates, Jan., 1919	69.23
" " " 1918	68.05
Specialists, Jan., 1919	16
Interim Specialists, Jan., 1919	47
Percentage of Specialists and Interim Specialists, Jan., 1919	26.92
Percentage of Specialists and Interim Specialists, Jan., 1918	25.31
Elementary Certificates in Art	64
" " Physical Culture	117
" " Household Science	1
Intermediate Certificates in Agriculture and Horticulture	6
Teachers holding Elementary or Intermediate Certificates, Jan., 1919	158
Increase for the year	17

* Eleven of these schools have in addition one teacher who devotes at least half time to Continuation School work.
† Two schools, Bracebridge and Fort Frances, were made High Schools in 1918.

III. List of Principals and Assistants of Collegiate Institutes and High Schools, January, 1919

Collegiate Institutes	Names of Teachers	Degrees	Specialists	Elementary and Intermediate Certificates (In the case of Agr. and Hor. the Certificate is Intermediate.)	Date of appointment	No. of years' experience in a High School or Coll. Inst.	No. of years in a Public School	Salaries		
								Principal	Male Assistants	Female Assistants
								$	$	$
Barrie	Ross, Alexander H. D.	M.A., Queen's	Sci., Math.	.....	1918	17½	....	2,200	.....	.....
	Hay, Andrew	.....	Math.	.....	1882	40	8	.....	1,450	.....
	Cowan, I. Kathleen	B.A., Tor.	Art, Classics	Phys. Cul. ...	1914	6½	½	.....	.....	1,450
	Burriss, Mae N.	B.A., Tor.	Phys. Cul., Mods. & His..	.....	1915	3½	2	.....	.....	1,400
	Heath, Horace J.	B.A., Tor.	Phys. Cul. (Int.), Science	.....	1915	3½	3	.....	1,700	.....
	Burns, Olive M.	B.A., Queen's	.....	.....	1916	4½	....	.....	.....	1,200
	Keagey, Jessie L.	B.A., Tor.	Phys. Cul. .....(Int.)	.....	1916	4	1½	.....	.....	1,100
	Harper, Gertrude A. ..(Int.)	B.A., Tor.	Com.	Phys. Cul. ...	1918	½	3½	.....	.....	1,150
	Stark, Ethel M.	B.A., Tor.	Art	Phys. Cul. ...	1918	3½	....	.....	.....	1,000
Brantford ...	Overholt, Arthur M.	M.A., McM.	Math.	.....	1918	17½	½	2,800	.....	.....
	Burt, Arthur W.	B.A., Tor.	Mods. and Eng.	.....	1893	40	....	.....	2,200	.....
	Passmore, Samuel F.	M.A., Tor.	Classics	.....	1885	38	....	.....	1,800	.....
	Coates, Daniel H.	B.A., Tor.	Math.	.....	1893	31	....	.....	1,900	.....
	Bunnell, Effie M.	B.A., Tor.	Eng., Fr. and Ger.	.....	1891	27	....	.....	.....	1,800
	Erwin, Willis M.	B.A., Queen's	Science .....(Int.)	Agr. & Hor....	1918	2½	....	.....	1,800	.....
	Ryan, Gertrude	.....	.....	.....	1912	9	....	.....	.....	1,200
	McFadden, Robt. W. E.	B.A., Tor.	.....	.....	1916	3½	½	.....	1,500	.....
	Scanlan, James V.	.....	Phys. Cul. .....(Int.)	.....	1915	3½	3	.....	1,500	.....
	Shultis, Adam	.....	Com.	.....	1896	22	11	.....	1,800	.....
	Dixon, Nora G.	.....	Com.	Art, Phys. Cul.	1915	3½	2	.....	.....	1,200
	Matthews, Alma M. ..(Int.)	B.A., McM.	Eng. & Hist., Art	.....	1917	1½	1	.....	.....	1,300
	McAllister, Annie G.	.....	Phys. Cul. .....(Int.)	.....	1917	11	1½	.....	.....	1,200
	Hanna, Lorna .....(Int.)	B.A., Tor.	Eng. & Hist., Phys. Cul..	.....	1917	2	....	.....	.....	1,000
	Willoughby, Annie J.	.....	Phys. Cul. .....(Int.)	.....	1917	8½	5	.....	.....	1,200
	Hately, Mary Enid ..(Int.)	B.A., Tor.	.....	Phys. Cul. ...	1918	½	....	.....	.....	1,200
	Carscadden, Helen ....(Int.)	B.A., Tor.	Art	.....	1917	1½	....	.....	.....	1,000
	Franklin, Helen	B.A., Tor.	Eng. & Hist. .....(Int.)	Phys. Cul. ...	1918	2½	....	.....	.....	1,200
	Hartley, Edna E.	.....	(Household Sc. Instr.) ...	.....	1918	4½	4	.....	.....	1,000
	Gee, John A. .....(Int.)	.....	Manual Training	.....	1917	3½	....	.....	1,700	.....

Brockville ..	Husband, Almeron J.	B.A., Tor.	Eng. & Hist., Fr. & Ger.		1895	23	3	2,200		
	Smith, Frederick P.	M.A., Queen's	Science	P. C., Agr. & H.	1916	10½	5		1,700	
	Somerville, Thomas C.	B.A., Tor.	Mods. and Hist.		1909	24½	1		1,700	
	Giles, A. Edith		Art		1890	29	3			1,350
	Richardson, Kate		Art (Int.), Com.		1898	23	8			1,350
	McCormack, Mary I.	B.A., Queen's	Phys. Cul. (Int.)		1907	11	2			1,300
	Beattie, Lewis S.		Phys. Cul.		1910	10			1,450	
	Martin, Daintry (Int.)	B.A., Tor.	Classics		1917	2				1,200
	Ferguson, Arthur W.	B.A., Queen's	Phys. Cul. (Int.), Math.		1919	3	1		1,600	
Chatham	Twohey, William J.	M.A., Tor.	Classics		1904	34		2,400		
	Paterson, David S.	B.A., Tor.	Eng., Fr. and Ger.		1888	42	1½		1,800	
	Sexsmith, William N.	B.A., Tor.	Eng. and Hist.		1907	14½	3		1,900	
	Houston, Jessie	B.A., Tor.	Mods. and Hist.		1913	14½				1,600
	Asselstine, Oliver	M.A., Queen's	Math.		1915	11½			1,900	
	Haydon, William J.	M.A., McM.	Science	Phys. Cul.	1917	7½			1,900	
	Kirk, Gladys R.		Phys. Cul. (Int.), Art		1917	4½	1			1,200
	Brimicombe, Bessie F.		Com. (Int.)	Art, Phys. Cul	1918	6	3			1,300
	Cameron, James		Phys. Cul.		1918	4½	1		1,300	
	Quarry, Vincent C.	B.A., Tor.	Phys. Cul. (Int.)		1919	3			1,200	
	Weir Robert (Int.)		Manual Training		1917	13½	10		1,400	
	Campbell, Clara L.		(Household Sci. Instr.)		1918	1	8½			1,000
Clinton	Trealeaven, John W.	M.A., Tor.	Classics	Phys. Cul.	1907	27		1,800		
	Macdougall, Isabella J.	B.A., Tor.	Eng. & Hist., Fr. & Ger.		1910	12½	3			1,400
	Sinclair, Margaret		Art	Phys. Cul.	1916	2½	13			1,000
	Graham, Samuel T. H.	M.A., Tor.	Ph. Cul. (Int.), Mat. & Ph.		1916	2½			1,500	
	MacLeod, Augusta M.	B.A., Queen's	Science (Int.)	Phys. Cul.	1917	4½				1,400
	Ord, Annie L. (Int.)		Phys. Cul.		1919					1,000
Cobourg	Arthur, Colin C.	M.A., Queen's	Science		1893	27	1	2,100		
	Jones, Laura L.	B.A., Tor.	Eng., Fr. and Ger.		1898	25½				1,550
	Henry, Thomas M.	B.A., Tor.	Math.		1916	35	4		1,600	
	Davidson, Robert D. P.	B.A., Queen's	Science	Ph. Cl., A & H.	1916	3½	4		1,500	
	Hickey, Philippa A. V.		Phys. Cul. (Int.)		1916	6½	5			1,000
	Elcoat, Hazel I.		Com., Art	Phys. Cul.	1916	3	1½			1,400
	Entwistle, Merton L. .. (Int.)		Phys. Cul.		1917	1½			1,100	
	Pehfold, Janet L.	M.A., Tor.	Classics		1918	4				1,400
	Boggs, Grace		(Household Sci. Instr.)		1917	1½	7½			700
Collingwood .	Feasby, William J.	B.A., Queen's	Fr. & Ger., Mods. & Hist.		1912	10½	53	2,000		
	Willoughby, Henry A. G.* (Int.)	M.A., Tor.	Science		1919	1½	3½		1,800	
	Southcombe, Wm. J. S. (Int.)	B.A., Tor.	Classics, Phys. Cul.		1916	3½			1,600	
	Smith, Margaret		Com.	Art	1907	24	3			1,350
	Muirhead, Jessie L. ... (Int.)	B.A., Tor.	Math. & Phys., Phys. Cul.		1918	1	3			1,300

*On Military Service from Feb., 1915, to Oct., 1918.

List of Principals and Assistants of Collegiate Institutes and High Schools, January, 1919—Continued

Collegiate Institutes	Names of Teachers	Degrees	Specialists	Elementary and Intermediate Certificates. (In the case of Agr. and Hor. the Certificate is Intermediate.)	Date of appointment	No. of years' experience in a High School or Coll. Inst.	No. of years in a Public School	Salaries		
								Principal	Male Assistants	Female Assistants
								$	$	$
Collingwood—Con.	Carman, Margaret E.	M.A., Tor.	Mods. & Hist.		1918	7	....	.....	.....	1,400
	Haycock, Margaret A.G. (Int.)	B.A., Queen's	Art	Phys. Cul.	1917	2 3/4	1 1/2	.....	.....	1,100
	Ellis, Victor A. (Int.)	.....	(Manual Training Instr.)	.....	1918	3/4	6	.....	1,300	.....
	Wilson, Annie M. (Int.)	.....	(Household Sci. Instr.)	.....	1917	2	6 1/2	.....	.....	1,000
Fort William.	Wood, Elmore E.	M.A., McM.	Phys. Cul., Math.	.....	1912	15 1/2	2	2,700	.....	.....
	Cornell, Maurice L.	M.A., Queen's	Math.	.....	1910	11	....	.....	2,200	.....
	Parlee, Edith	.....	Art, Com.	.....	1908	24 1/2	10	.....	.....	2,000
	Grant, Christine C.	B.A., Tor.	Mods. & Hist.	.....	1914	15 3/4	9	.....	.....	2,000
	Ogilvie, Alvin I.	B.A., McM.	Mods.&H. (Int.), Eng.&Hist.	.....	1914	9 3/4	.....	.....	2,200	.....
	Millar, Maude	.....	Art, Phys. Cul. (Int.)	.....	1917	4	1/2	.....	.....	1,300
	Rutledge, Evelyn M.	.....	Art (Int.)	.....	1917	3 1/2	.....	.....	.....	1,200
	MacLaurin, James L.	M.A., McM.	Science	Phys. Cul.	1918	7	....	.....	1,900	.....
	Gundry, Helen M.	B.A., Tor.	Classics	Phys. Cul.	1918	14	....	.....	.....	1,600
	DeGroat, Charles	.....	(Man. Train. Instr.)	.....	1918	1 1/2	3	.....	1,900	.....
	Everson, Evelyn M.	.....	Household Sci.	.....	1912	6 1/2	5	.....	.....	1,500
Galt	Gundry, Arthur P.	B.A., Tor.	Science	.....	1914	27 1/2	....	2,800	.....	.....
	Carscadden, Thomas	M.A., Tor.	Eng. and Hist.	.....	1881	43	3	.....	2,100	.....
	Hamilton, Robert S.	M.A., Tor.	Science	.....	1894	29	....	.....	2,000	.....
	Carter, Janet W.	M.A., Tor.	Eng. & H. (Int.), Fr. & Gr.	.....	1901	26	....	.....	.....	2,000
	MacKay, John M.	B.A., Queen's	Math.	.....	1915	12 1/2	7	.....	2,000	.....
	Althouse, John G.	M.A., Tor.	Classics, Phys. Cul.	.....	1917	5 1/2	....	.....	2,000	.....
	Fleming, Louis C.	.....	.....	.....	1910	14 1/2	6 1/2	.....	1,700	.....
	Keys, George P.	.....	Phys. Cul. (Int.)	.....	1916	3	8 1/2	.....	1,500	.....
	Weatherill, Helen E. M.	.....	Com. Art	Phys. Cul.	1918	7 1/2	1	.....	.....	1,400
	Fraser, Lulu B.	.....	Phys. Cul. (Int.), Art	.....	1916	6 1/2	2 1/2	.....	.....	1,400
	Phelan, Frank J.	.....	Manual Training (Int.)	.....	1916	4 1/2	5	.....	1,700	.....
	Crowe, Greta M.	.....	(Household Sci. Instr.)	Phys. Cul.	1915	4	....	.....	.....	1,000

Goderich	Hume, John P.	B.A., Queen's	Science	Agr. & Hor. .	1911	27	....	1,800	.....	.....
	Robertson, Alexander M.	M.A., Queen's	Math., Fr. and Ger.	.....	1908	23½	3	.....	1,500	.....
	Clifford, Margaret K.	M.A., B.Pæd., Qu's..	Mods. & Hist., Eng. & Hist.	.....	1912	11½	5	.....	.....	1,400
	Hodge, Gertrude Agnes	B.A., Tor.	.....	Phys. Cul. ...	1909	10	1	.....	.....	1,000
	Durnin, Letitia E.	.....	Phys. Cul. .....(Int.)	.....	1912	6½	5	.....	.....	1,000
	Urquhart, Mrs. Ethel K.	B.A., Tor.	Classics	.....	1917	11½	....	.....	.....	1,400
	Govenlock, Janet S. ..(Int.)	.....	Art	.....	1918	1½	1	.....	.....	1,100
Guelph	Davison, James	B.A., Vic.	Math.	.....	1892	44	2	2,300	.....	.....
	Charlesworth, John W.	B.A., Queen's	.....	.....	1915	28	3½	.....	1,900	.....
	Skinner, Kate C.	B.A., Tor.	Eng., Hist., Fr. & Ger. ...	.....	1895	24	1	.....	.....	1,600
	McNiece, James	B.A., Tor.	Science	.....	1910	23	3	.....	1,900	.....
	Hooper, Arthur G.	M.A., Tor.	Classics	.....	1916	5½	2½	.....	1,900	.....
	Blyth, Sara	.....	Com.	.....	1910	15½	7	.....	.....	1,500
	Hartford, James	.....	.....	.....	1911	8½	3	.....	1,450	.....
	Humphries, B. Rowena	.....	Art	.....	1913	9	3	.....	.....	1,300
	Fritz, Myrtle E.	.....	Com. .....(Int.)	.....	1917	3½	½	.....	.....	1,100
	Cinnamon, Mabel A. ..(Int.)	B.A., Tor.	Mods. & Hist.	.....	1918	2	1	.....	.....	1,100
	Knight, Florence .....(Int.)	B.A., Tor.	Phys. Cul., Art	.....	1918	1½	....	.....	.....	1,100
	Shaw, Elsie M. .....(Int.)	.....	.....	.....	1918	½	½	.....	.....	1,000
Hamilton	Thompson, Robert A.	B.A.,Tor.,LL.D.,McM	Math.	.....	1885	33½	....	3,700	.....	.....
	Turner, John B.	B.A., Queen's	Math., Science	.....	1885	37	3	.....	2,800	.....
	Logan, William M. .....†	M.A., Tor.	Classics	.....	1892	33	....	.....	2,400	.....
	Hogarth, Eber S.	B.A., Tor.	Eng., Fr. and Ger.	.....	1892	30	....	.....	2,600	.....
	Simpson, Benjamin L.	M.A., Queen's	Math.	.....	1905	13½	3	.....	2,500	.....
	Morris, Arthur W.	M.A., Tor.	Classics	.....	1906	14	5	.....	2,500	.....
	Johnston, George L.	B.A., Queen's	Art, Com.	.....	1888	31	3	.....	2,500	.....
	Armstrong, George F.	B.A., Tor.	Math.	.....	1907	16½	1½	.....	2,400	.....
	Morrison, Edward	B.A., Tor.	Science, Math.	.....	1907	12½	6	.....	2,400	.....
	Marshall, Charles F.	B.A., Tor.	Science	.....	1909	11½	....	.....	2,300	.....
	Freeman, John A.	B.A., Tor.	Classics	.....	1909	30	....	.....	2,300	.....
	McGee, Cyril H.	B.A., Trin.	Math.	.....	1909	22	....	.....	2,300	.....
	Moffat, William J.	B.A., Queen's	.....	.....	1909	9½	12	.....	2,300	.....
	Collins, Herbert E.	B.A., Tor.	Mods. and Hist.	.....	1911	12½	....	.....	2,300	.....
	Sheppard, Alton M.	B.A., Tor.	Math.	.....	1911	10	2½	.....	2,200	.....
	Price, Charles F.	B.A., Tor. & West..	Eng. and Hist.	.....	1913	8	8	.....	2,150	.....
	Beck, Clinton G.	B.A., Queen's	Mds. & H., Fr. & Gr. (Int.)	.....	1914	5½	½	.....	2,000	.....
	Foucar, Walter K.	M.A., Tor.	Eng. & Hist., Fr. & Ger..	.....	1914	23½	....	.....	2,100	.....
	Pugh, Harry C.	B.A., Tor.	Science .....(Int)	.....	1915	4½	2½	.....	1,850	.....
	Devitt, S. Girvin	B.A., Tor.	.....	.....	1915	4½	2	.....	1,800	.....
	McGarvin, Michael J. .....*	B.A., Tor.	Mods. and Hist.	.....	1919	10	1¾	.....	2,500	.....
	Edwards, John J. .....**	B.A., Queen's	Fr. and Ger.	.....	1919	8	6	.....	2,200	.....
	Clarke, Walter	B.A., McM.	Classics	.....	1919	3½	....	.....	1,700	.....
	Edwards, Mabel C.	.....	Phys. Cul. .....(Int.)	.....	1908	12½	....	.....	.....	1,200

*On Military Service from July, 1916, to Dec., 1918. **On Military Service from Sept., 1918, to Jan., 1919. †On Leave of Absence.

List of Principals and Assistants of Collegiate Institutes and High Schools, January, 1919—Continued

Collegiate Institutes	Names of Teachers	Degrees	Specialists	Elementary and Intermediate Certificates (In the case of Agr. and Hor. the Certificate is Intermediate.)	Date of appointment	No. of years' experience in a High School or Coll. Inst.	No. of years in a Public School	Salaries		
								Principal	Male Assistants	Female Assistants
								$	$	$
Hamilton—Con.	Hill, Mary A.		Art (Int.)		1909	17	4			1,200
	Brown, Margaret S. (Int.)	B.A., Tor.	Phys. Cul.		1917	1½	2			1,100
	Gordon, James I. (Int.)	B.A., Tor.	Phys. Cul.		1918	½	3½		1,700	
	Taylor, Frederick		(Man. Train. Instr.)		1918	6	3		1,900	
	Hamill, Alice M. (Int.)	B.A., Tor.	Household Sci., Phys. Cul		1918	½				1,000
Ingersoll	Shales, William E.	M.A., B.Pæd., Q'ns	Science, Phys. Cul.		1914	4½	4	2,000		
	Lockett, Horace G.	M.A., Queen's	E. & His. (Int.), Classics.	Phys. Cul.	1916	2½			1,700	
	Jackson, Katherine M.	B.A., Tor.	Phys. Cul. (Int.) Mods & H.		1916	9				1,200
	Hudson, Annie L.		Art, Com. (Int.)	Phys. Cul.	1917	5½	12½			1,200
	Tovell, Alene M. (Int.)	B.A., Queen's	Eng. & Hist.		1917	1½	1			1,000
	Martin, Jean E.	B.A., Tor.	Math. and Phys.	Phys. Cul.	1918	2½				1,300
	Kendall, Sybel M. (Int.)	B.A., Tor.	Household Sci.	Phys. Cul.	1918	½				900
	Macaulay, George A. (Temp.)		(Man. Train. Instr.)		1918	1			900	
Kingston	Sliter, Ernest O.	M.A., Tor.	Classics		1888	31		2,500		
	Anderson, William G.	B.A., Tor.	Eng. and Hist., Classics.		1909	17½	3½		1,900	
	Fraser, James W.	B.A., Tor.			1904	15½	10		1,500	
	Saunders, William J.	M.A., Qn's, M.S., Chi.	Science		1908	18½	3		1,900	
	Hedley, William P.	B.A., Tor.	Math.		1908	14½	8		1,600	
	Chase, Reginald M.	B.A., Tor.	Classics		1910	13			1,700	
	Henstridge, Elizabeth	M.A., Queen's	Eng., Hist., Fr. & Ger.		1907	17½	7			1,300
	Chown, Hattie L.				1905	14	20			1 200
	Kelly, James W.	B.A., Queen's			1912	6½	15		1,500	
	Casselman, Mrs. Cora T.	B.A., Queen's	Eng. and Hist. (Int.)		1913	5½	3			1,500
	Shurtleff, William M.	B.A., Queen's	Art, Com.		1913	9½	8		1,800	
	Box, Mrs. Florence M.	B.A., Queen's			1915	3½				1,200
	Hitsman, Samuel A.	B.A., Queen's	Com. (Int.)		1916	4½	20		1,500	

	Irving, Geraldine N.	B.A., Queen's			1916	2½	2			1,100
	Smith, George R.	B.A., Tor.	Math.		1917	7½	3½		1,800	
	Otto, George S.	B.A., Queen's	Phys. Cul. (Int.), Mods&H		1917	4½	3		1,700	
	Palmer, George A.		(Drill Instructor)		1910	8				
Kitchener-Waterloo	Forsyth, David	B.A., Tor.	Math.		1901	41½	1	2,200		
	Mallory, Bertha		Com.	Art, Phys. Cul.	1913	11½	10			1,450
	Pugsley, Edmund	B.A., Vic.	Science	Agr. & Hor.	1909	28			1,870	
	Kerr, Charles S.	B.A., Tor.	Classics, Eng. and Hist.		1911	31			1,870	
	Brown, Harry W.	B.A., Queen's	Art		1905	13½	17		1,870	
	Lee, Anna A.		Art (Int.)		1912	9	4			1,050
	Barber, Etta L.				1914	6½	5½			1,050
	Erb, Maurice	B.A., Queen's	Eng. and Hist.		1917	2½	5		1,700	
	de Guerre, Laura B.	B.A., Tor.	Mds. & H., P.C., (Int.) F&G		1917	4½				1,450
	Pengelley, Olympus R.		Manual Training		1919	4	5		1,760	
	Boyd, Marion K.		(Household Sci. Instr.)		1914	5				1,000
	Jones, Stephanie W.		(Phys. Cul. Instr.)		1915	3	½			
	Phillips, Michael H.		(Phys. Cul. Instr.)		1918	½				
Lindsay	Kirkconnell, Thomas A.	B.A., Queen's	Math.		1908	33	3	2,500		
	Jennings, Edwin Wm.	B.A., Tor.	Eng. and Hist.		1909	16	4		1,800	
	Lucas, Gavin A.	B.A., Tor.	Com.	Art	1910	16	6		1,800	
	Firth, Thomas	M.A., Tor.	Science	Agr. & Hor.	1912	8½	2½		1,800	
	Moir, Catherine E.				1908	24½	4			1,200
	Johnson, Alfred	B.A., Queen's	Phys. Cul. (Int.)		1916	2½			1,500	
	O'Neill, Morgan J.	B.A., Queen's			1917	4½	2½		1,400	
	Montgomery, Mayme I.	B.A., McM.	Art, Fr. & Ger.		1917	5½				1,500
	Hambly, Philo K.* (Int.)	B.A., McM.	Classics		1918	1½			1,600	
	Cameron, Mrs. Ethel M. (Int.)	M.A., Queen's	Fr. and Ger.		1918	5½				1,300
	Shook, Muriel A.		Phys. Cul.	Art, Ag. & Hor.	1918	6½				1,200
London	Mooney, Wm. H. T.	B.A., Tor.	Classics		1903	16½	6	2,700		
	MacDonald, George L.	B.A., Tor.	Eng., Fr. and Ger.		1908	26	7		2,150	
	Dickinson, James A.		Com.		1895	32	4		2,100	
	Riddell, Frank P.	B.A., Tor.	Classics		1898	29			2,100	
	Gray, Neil R.	B.A., Tor.	Mods. and Hist.		1904	15½	3		2,250	
	Cameron, John H.				1911	20	9		2,000	
	Buchanan, John A.	B.A., Queen's	Com.		1907	17½	3		2,000	
	Walker, Arthur J.	B.A., Queen's	Com.		1908	15	8		2,000	
	Calvert, Joseph F.	M.A., McM.	Science	Agr. & Hor.	1909	14	1½		2,100	
	Martin, Setephen	B.A., Tor.	Math.		1912	32	3½		2,100	
	Bluett, Claude K.	B.A., Queen's			1912	6½	14		2,050	
	Kelso, Alice C.				1897	23½	2½			1,500
	Winnett, Violet E.	B.A., Western			1912	6½	23			1,500

*On Military Service from July, 1917, to Jan., 1918.

List of Principals and Assistants of Collegiate Institutes and High Schools, January, 1919—Continued

Collegiate Institutes	Names of Teachers	Degrees	Specialists	Elementary and Intermediate Certificate (In the case of Agr. and Hor. the Certificate is Intermediate.)	Date of appointment	No. of years' experience in a High School or Coll. Inst.	No. of years in a Public School	Salaries		
								Principal	Male Assistants	Female Assistants
								$	$	$
London—Con..	Firth, Joseph W.	B.A., Tor.	Science		1914	11	2	.....	2,100	.....
	Menhennick, Ada M.	B.A., McM.	Mods. and Hist.....(Int.)		1914	6½	3½	.....	.....	1,500
	McCamus, Bessie	B.A., Tor.	Eng. and Hist., Art (Int.)		1913	9	....	.....	.....	1,500
	Miller, Everton A.	M.A., McM.	Classics		1918	6½	3	.....	2,000	.....
	Blake, Richard J.		Com.		1915	10½	2	.....	2,000	.....
	Oates, Thomas W.		Com.		1915	7½	2	.....	2,000	.....
	Goldstock, Isidore ....(Int.)	M.A., Tor.	Mods. and Hist.		1917	1½	....	.....	1,800	.....
	Manley, Mary J. .....(Int.)	B.A., West.	Phys. Cul.		1917	2½	....	.....	.....	1,400
	Ferguson, John	B.A., Queen's			1918	12½	8	.....	2,000	.....
	Murdy, Arthur M. ....(Int.)				1918	7½	8	.....	1,700	.....
	McNeil, William G.	B.A., Queen's	Eng. and Hist.		1918	3½	3½	.....	1,900	.....
	Macdonald, Fred J.	M.A., Tor.	Math. and Phys.	Art. Phys. Cul..	1619	3½	3	.....	1,800	.....
	Urlin, William R. ....(Int.)	B.A., Queen's	Math.	Phys. Cul.....	1919	½	1½	.....	1,800	.....
	Adams, William A.		Manual Training		1917	9	20	.....	1,900	.....
	Davidson, S. Kelso		(Art Instructor)		1887	38	....	.....	1,000	.....
	MacPherson, Mary C.	B.A., Queen's	(Household Sci. Instr.)		1908	16	....	.....	.....	1,600
	Syme, John J.		(Drill Instructor)		1916	13½	....	.....	1,500	.....
Morrisburg....	Elliott, Thomas E.	B.A., Tor.	Fr., and Ger., Eng.		1914	30	....	1,800	.....	.....
	Boyd, Annie A.	M.A., Queen's	Com., Science		1907	14½	8	.....	.....	1,500
	Pringle, Gertrude	B.A., Tor.	Art, Classics	Phys. Cul. ...	1912	13½	½	.....	.....	1,400
	Morrison, Selkirk A.	B.A., Queen's	Phys. Cul. (Int.) Eng. & H.		1915	16½	4	.....	1,400	.....
	Munro, Margaret K.	B.A., Tor.	Math.	Phys. Cul. ...	1918	8½	5½	.. ..	.....	1,300
Napanee.....	Maclean, Godwin V.	M.A., Tor.	Math.		1913	26	1½	1,800	.....	.....
	Smith, Thomas C.	M.A., Queen's	Science	Agr. & Hor.	1917	19	14	.....	1,700	.....
	Baker, Sarah J.		Com.	Phys. Cul. ...	1914	13½	2½	.....	.....	1,200
	Locklin, Elva J.	B.A., Tor.	Art .....(Int.)		1913	5	4	.....	.....	1,050

	Davis, Eleanor A. ....(Int.)	B.A., Tor.	Phys. Cul.		1917	1½	½			1,000
	McCamus, William R. .....*	B.A., Tor.	Phys. Cul. (Int.), Classics		1918	2	....		1,400	
	Girdler, Winifred A. M. (Int.)	M.A., Queen's	Mods. & Hist.		1919	1	....			1,200
Niagara Falls..	Dickson, James D.	B.A., Tor.	Math.		1893	31	3	2,450		
	Walker, David M.		Com.		1893	29	16		1,950	
	Will, George E. †	B.A., Tor.	Classics		1901	19	3		1,950	
	Bielby, George H.	B.A., Tor.	Science		1913	11½	7		1,950	
	Agla, Mildred A.		Art		1915	8½	2			1,550
	Howson, Alexandra A.	B.A., Queen's	M.&H.(Int.),F.&G. Ph.Cl.		1916	9	2			1,500
	Ward, Ada L.	M.A., Tor.	Mods. & Hist.	Phys. Cul.	1917	10	3			1,500
	Whitelock, Stanley G..(Int.)	B.A., Tor.	Phys. Cul.		1918	½	3		1,550	
	Dickson, Helen M.		Com., Art .....(Int.)	Phys. Cul.	1918	6½	2			1,450
	VanAlstyne, Susan A.	B.A., Tor.	Math.		1918	6	3½			1,450
	Messmore, Joseph F.	B.A., Tor.	Classics		1919	26	....		1,800	
North Bay....	Brown Percy W.	B.A., Queen's	Science		1913	25	4	2,500		
	Wallace, Frank D.	M.A., Queen's	Math.		1913	8½	....		2,000	
	Bottoms, Emma M.		Art, Com.		1914	6½	9			1,400
	Farmer, Bessie S.	B.A., McM.	Mods. & His.(Int.) Ph. Cul.		1916	2½	1			1,300
	Mackintosh, Helen	M.A., Queen's	Fr. and Ger.		1916	8½	....			1,450
	Affleck, Elsie	M.A., Tor.	Classics	Phys. Cul.	1916	5½	....			1,450
	King, Eva W.	B.A., Tor.	Phys. Cul.		1916	4½	....			1,350
	Leuty, James H. S.		Phys. Cul.		1917	3½	1½		1,300	
Orillia.....	Lillie, John T.	B.A., Vic.	Classics		1910	31½	....	2,100		
	Doidge, Thomas Clarke	B.A., Tor.	Math., Com.		1899	25	8		1,700	
	McGill, David H.	M.A., Queen's	Science		1914	7	3½		1,800	
	Watterworth, Grace M.		Com.		1914	17½	2			1,450
	Clark, Ira E.		Phys. Cul. .....(Int.)	Com.	1906	12½	7		1,400	
	Jamieson, Mrs. Lulu M.	B.A., Tor.	Mods. and Hist.	Phys. Cul., Art.	1918	2½	....			1,100
	Cryderman, May	B.A., Tor.	Eng. and Hist.	Phys. Cul.	1918	4½	....			1,100
	Kenny, Vera B.	B.A., Tor.	Art	Phys. Cul.	1917	2½	....			1,050
	Lott, Edith A.		Phys. Cul. .....(Int.)		1917	4½	1			1,050
Ottawa.....	McDougall, Alex. H.	B.A.,Tor.; LL.D.,Qn's	Math.		1889	33½	....	3,600		
	Marty, Aletta E.	M.A., Queen's	Fr. and Ger.		1903	24	3			2,500
	Norris, Isaac T.	B.A., Queen's	Math.		1898	23	....		2,500	
	Hardie, William	B.A., Tor.	Classics		1905	27	....		2,500	
	Stothers, Robert	B.A., Queen's			1887	32	8		2,500	
	Hood, Finlay	B.A., Queen's	Com. (Int.), Art		1906	14	7		2,500	
	Simpson, Robert S.	B.A., Queen's	Com.		1903	20	9		2,500	
	Smeaton, William	B.A., Tor.	Science		1906	18½	1½		2,400	
	Stevenson, William J.				1906	28	8		2,100	
	Tomkins, Elizabeth A.				1902	16½	19			2,100
	Mann, Harry C.	B.A., McM.			1907	11½	6		2,100	

*On Military Service from June, 1916, to Nov., 1917. †On Leave of Absence.

List of Principals and Assistants of Collegiate Institutes and High Schools, January, 1919—Continued

Collegiate Institutes	Names of Teachers	Degrees	Specialists	Elementary and Intermediate Certificates (In the case of Agr. and Hor. the Certificate is Intermediate.)	Date of appointment	No. of years' experience in a High School or Coll. Inst.	No. of years in a Public School	Salaries		
								Principal	Male Assistants	Female Assistants
								$	$	$
Ottawa—Con..	Graham, William A.	B.A., Tor.			1908	20½	3	.....	2,100	.....
	Kaiser, Jesse B.				1909	25	4	.....	2,100	.....
	Muir, Jessie	M.A., Queen's	Fr. and Ger.		1909	9½	8	.....	.....	2,000
	Mabee, George E.	B.A., Tor.	Classics, Fr. and Ger.		1910	25½	....	.....	2,100	.....
	Lane, James S.	B.A., Tor.	Fr. and Ger.		1911	22	....	.....	2,100	.....
	Stewart, George B.	B.A., Queen's	Math.		1911	9½	2	.....	2,100	.....
	Gilchrist, Dugald A.	B.A., B.Paed., Tor..	Eng. and Hist.		1912	13½	7	.....	2,500	.....
	Donaldson, William	B.A., Tor.	Science		1912	18	5½	.....	2,100	.....
	Smith, Henry L.		Com. (Int.)		1912	9	6½	.....	2,100	.....
	Curtis, Jeremiah T.	B.A., Queen's			1913	5½	15	.....	1,800	.....
	Howie, James R.			Phys. Cul.	1914	5½	....	.....	1,860	.....
	Anderson, Frank C.	B.A., M.D.,C.M.,Qn's..	Science, Com.		1914	13½	5	.....	2,100	.....
	Readdie, George	B.A., McM.; M.A.,Ed.	Fr. and Ger.		1914	5½	....	.....	1,900	.....
	Latour, Charles A.	B.A., Laval			1914	4½	1	.....	1,700	.....
	Stuart, Frederick A.	M.A., Tor.	Science		1915	23	....	.....	2,100	.....
	Batstone, A. Thomas	B.A., Queen's			1915	8½	1½	.....	1,800	.....
	MacMinn, Marie	B.A., Queen's	Mods.& H.,P.C.(Int.)E. & H.		1915	3½	....	.....	.....	1,400
	Gilhooly, Beatrice C.	B.A., Queen's	Eng. & Hist. (Int.)		1915	3½	....	.....	.....	1,500
	Hills, Minnie B.	B.A., Tor.	Math.		1916	17	....	.....	.....	1,900
	Johnston, Agnes M.		Art, Com.	Phys. Cul.	1916	15	2	.....	.....	1,800
	Burridge, Arthur A. ..(Int.)	B.A., McM.	Phys. Cul.		1916	2½	....	.....	1,700	.....
	MacKay, Donald, A.	M.A., Queen's	Science		1916	16½	5	.....	2,100	.....
	Redick, Claire L.	B.A., Tor.	Phys. Cul.		1917	3½	....	.....	.....	1,600
	Kellock, Evelyn D.	B.A., McM.	Eng. and Hist.		1918	5½	....	.....	.....	1,300
	Kilpatrick, Jessie S.	B.A., Queen's	Phys. Cul.		1918	5	1½	.....	.....	1,400
Owen Sound...	Merritt, Robert N.	B.A., Tor.	Math.		1916	19	1½	2,250	.....	.....
	Packham, James H.	B.A., Vic.	Math., Com.	Art	1884	35½	2	.....	1,900	.....

	Brown, Lyman	M.A., Tor.	Classics		1903	12½	1½		1,900	
	Elmslie, Wallace	B.A., Tor.	Mods. and Hist.		1909	17½			1,900	
	Robertson, George A.	B.A., Tor.	Science		1909	14½	5		1,900	
	Whitely, Lester R.	B.A., Tor.	Mods. and Hist.		1910	16½			1,900	
	Dowkes, William J.		Phys. Cul. (Int.)		1903	15	12		1,500	
	Power, Eva A.		Com.	Phys. Cul.	1918	5½	3			1,250
	Somerville, Eva M.		Art (Int.)	Phys. Cul.	1918	4				1,050
	De Foe, Eugenie M.	B.A., Tor.	Art (Int.), Phys. Cul.		1918	2½	5			1,150
	Masson, Isabel F. (Int.)	B.A., Tor.			1918	½				950
	Prichard, Frances P.		(Household Sci. Instr.)		1906	12				1,000
	Windsor, Thos. (Temp.)		(Manual Training Instr.)		1918	½			1,400	
Perth	Trench, William W. A.	B.A., Tor.	Phys. Cul. (Int.), Classics	Com.	1918	14½	5	1,900		
	Hubbs, Mary W.	B.A., Queen's	Fr. and Ger. (Int.)	Phys. Cul.	1918	3½				1,300
	Mott, Stella K.	B.A., Tor.	Art, Eng. & Hist. (Int.)		1918	7½	4			1,300
	Firby, Mrs. Emma Ford		Com.	Phys. Cul.	1918	9½	4			1,300
	Humphries, Wilhelmina M.	B.A., Queen's	Math. and Phys. (Int.)		1918	4½				1,400
	Philp, Nellie M.	B.A., Queen's	Phys. Cul., Science (Int.)		1918	3	4			1,400
Peterborough	Kenner, Henry R. H.	B.A., Tor.	Classics		1893	30½	½	2,700		
	Pettit, Louis J.	B.A., Queen's	Eng. and Hist.		1908	13½	3		2,000	
	Jamieson, Clinton E.	B.A., Qn's., LL.B., Man.	Phys. Cul. (Int.), Com.		1911	14½	1		2,000	
	Morris, Francis J. A.	M.A., Tor.; B.A., Oxon.	Classics		1913	8			1,950	
	Hone, Arthur D.	M.A., Tor.	Phys. Cul. (Int.), Science		1914	6	2		2,000	
	Browne, Carl S.	M.A., McM.	Math. and Phys.		1914	5½			1,950	
	Henry, V. Roland	M.A., Queen's	Science		1914	4½			1,950	
	Graham, Samuel J.	B.A., McM.			1916	3			1,450	
	Wallace, Muriel J. W.	B.A., Tor.	Phys. Cul., Mods. & His.		1917	3½				1,800
	Zavitz, Arthur S.	B.A., Queen's	Math.	Phys. Cul.	1917	10½	3½		1,800	
	Sanderson, Lenore A.	B.A., Queen's	Phys. Cul. (Int.) Art		1917	3½				1,450
	Faint, Pearl B.	M.A., Tor.	Mods. and Hist.		1918	10½				1,700
Picton	Kerfoot, Horace W.	B.A., Queen's	Classics		1915	14	11	2,300		
	Solmes, Harriette M.	B.A., Queen's			1912	11	1½			1,200
	Hewitt, Cora E.	B.A., Tor.	Phys. Cul., Mods. and His.		1913	6½	2½			1,400
	Reid, Edith L.		Art, Com.		1916	10½	6½			1,300
	Graham, Hugh H.	B.A., McM.	Science	Ag. & Hor., P.C.	1917	3½			1,800	
	Hubbs, Maude	B.A., Queen's			1917	2½	1½			950
	Kinnee, Herbert C.	B.A., Tor.	Math. & Phys., Ph.Cl. (Int.)		1918	4½	2		1,500	
	Clinton, Nell M. (Int.)	B.A., Queen's		Phys. Cul.	1918	½	4½			900
Port Arthur	Howell, William B. L.	B.A., Tor.	Classics		1904	21		2,600		
	Cranston, David L.	B.A., Tor.	Math.		1907	15			2,200	
	Rosevear, Howard S.	B.A., Tor.; M.A., Harv.	Com. (Int.), Science		1910	23			2,200	
	Aitchison, Belle		Art		1903	24	3			1,800

List of Principals and Assistants of Collegiate Institutes and High Schools, January, 1919—Continued

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								Principal	Male Assistants	Female Assistants
								$	$	$
Port Arthur.—*Con.*	Trenaman, Mabel N.	B.A., Tor.	Phys. Cul., Mods. & Hist.		1916	16½	....	.....	.....	1,700
	White, Kate E.	.....	Art (Int.), Com.		1918	13	1	.....	.....	1,600
	Holmes Mary J. (Int.)	B.A., Tor.	Household Science		1917	1½	....	.....	.....	1,300
	Evans, Fred. J. (Temp.)	.....	(Manual Training Instr.)		1918	1	....	.....	1,475	.....
Renfrew	Bryan, Hugh W.	M.A., Queen's	Classics		1907	21½	....	2,200	.....	.....
	Baird, Alex. W.	M.A., Queen's	Eng., His., Fr. and Ger.		1908	10½	....	.....	1,900	.....
	Corkery, Florence	M.A., Queen's	Art, Eng. and Hist.		1910	11	3	.....	.....	1,450
	Fritz, Olive E.	.....	Com.		1913	8	....	.....	.....	1,450
	Scott, Rena C.	.....	Phys. Cul. (Int.)		1915	7½	2	.....	.....	1,350
	McGregor, Pearl	.....	.....	Phys. Cul.	1912	6½	3½	.....	.....	1,150
	Davies, Norman	B.A., McM.	Science, Phys. Cul.	Agr. & Hor.	1918	3½	....	.....	1,800	.....
	Higginson, Maria A.	B.A., Queen's	Math. (Int.)	Phys. Cul.	1918	18	2½	.....	.....	1,700
St. Catharines.	Coombs, Albert E.	M.A., B.Paed., Tor.	Classics		1909	26½	....	2,050	.....	.....
	Odlum, Eleanor D.	B.A., Trin.	Mods. and Hist.		1907	15½	1	.....	.....	1,700
	Anderson, Lillie C.	.....	Com.		1912	15	3	.....	.....	1,500
	Lauder, Beatrice G.	M.A., Queen's	Eng. and Hist		1912	7	....	.....	.....	1,500
	Taylor, Wilson	B.A., Tor.	Math.		1914	33	2½	.....	1,850	.....
	MacKenzie, Eva F.	.....	Art		1914	10½	9½	.....	.....	1,300
	Jenner, Madeline M.	B.A., Tor.	Phys. Cul.		1914	4½	....	.....	.....	1,250
	Poirier, Mary H.	.....	.....		1916	4½	1	.....	.....	1,100
	Doherty, John C.	B.A., McM.	Science	Phys. Cul.	1917	8	....	.....	1,700	.....
	Gibson, Viola M. (Int.)	.....	.....		1917	1½	2	.....	.....	900
	Danard, Charles H.	B.A., Tor.	Phys. Cul. (Int.)		1917	3½	2½	.....	1,500	.....
	Bell, Lily M. (Int.)	M.A., Western	.....	Art	1918	1½	6	.....	.....	900
	Moyer, Lina R. (Int.)	B.A., Tor.	Phys. Cul.		1919	1½	....	.....	.....	900

St. Mary's	Bocking, William R.	M.A., Tor.	Phys. Cul. (Int.)Math. & Phys.		1913	6½	1	1,750	
	Ramage, George E.	B.A., McM.	Phys. Cul., Science (Int.)		1918	2½			1,600
	Colbeck, Marjorie M.	B.A., Tor.	Classics	Phys. Cul.	1916	4½			1,300
	Hamer, Lottie E.	B.A., Tor.	Mods. and His., Phys. Cul.		1917	5	2½		1,300
	Macpherson, Mary K...(Int.)	B.A., Queen's	Mods. and Hist.	Phys. Cul.	1918	1	½		1,000
	Burns, Grace	B.A., Tor.	Phys. Cul (Int.), Art		1918	3½			1,000
	Heather, Ruth B.		Com. (Int.)	Phys. Cul.	1918	3½			1,000
St. Thomas	Voaden, Arthur C.	M.A., Queen's	Eng. and Hist., Com.		1903	24	2	2,300	
	Cook, Margaret	M.A., Tor.	Eng., His., Fr. & Ger.		1903	23			1,750
	Liebner, Ernest O.	B.A., Queen's	Science		1909	25		1,900	
	Gray, George L.	B.A., Tor.	Eng. & Hist.		1909	11½		1,800	
	Wing, Henry				1908	11	9	1,600	
	McEachern, John G.	B.A., Queen's	Eng. and Hist.		1909	10½	4½	1,800	
	Thomas, Neil J.		Art		1910	9	7½	1,800	
	Berney, Laura J.	B.A., Queen's	Phys. Cul. (Int.)		1911	11½			1,450
	Stone, Alice B.		Com.		1913	16½	8		1,750
	Tanner, Alice M.		Com.		1915	6½	1½		1,750
	Coulter, Eva M.	B.A., Queen's	Eng. and Hist. (Int.)		1915	5½	5½		1,250
	Tanner, Annie M. (Int.)		Phys. Cul., Com.	Art	1917	2½	1		1,250
	Harvey, Martha A.	B.A., Tor.	Math. & Phys., Phys. Cul.		1918	13			1,550
	French, Fred. W.	B.A., Tor.	Classics		1919	21½		1,750	
	Palmer, Ethel M.		Household Science		1914	5	5½		1,050
	Seaman, John R. ...(Temp.)		(Manual Training Instr.)	Man. Train.	1918	½	2	1,250	
	Tanton, Francis *		Phys. Cul. (Int.), Man. Tr.		1919	12½	7	1,600	
Sarnia	Brown, Clarence L.	M.A., McM.	Math.		1918	9	2	2,100	
	Grant, David M.	B.A., Tor.	Classics		1885	35		1,950	
	Dent, William A.		Science		1904	21	2	1,950	
	Story, Gladys S.	M.A., Queen's	Mods. and Hist.	Phys. Cul.	1915	16			1,850
	Campbell, Minnie M.		Art, Com.		1912	11½	10½		1,400
	Cruickshank, Libbie		Com.		1913	13½	5		1,400
	Campbell, Lillian M.	B.A., Tor.	Mods. and Hist.		1915	3½			1,350
	Runnings, Joseph B. C.		Phys. Cul. (Int.)		1917	3½	1	1,500	
	Gordon, Mary M.		Phys. Cul. (Int.)		1918	3½	3½		1,350
	Burk, Charlotte A.	B.A., McM.	Com. (Int.)		1918	3	1		1,300
	Harris, Mary A.	B.A., McM.	Mods. and Hist.		1918	6½	½		1,300
Seaforth	Ross, John F.	M.A., Tor.	Math. & Phys., Phys. Cul.		1913	5½	2½	2,000	
	Hazen, Arthur C.	M.A., Tor.	Science (Int.)	Phys. Cul.	1915	3½	3½	1,700	
	MacPherson, Pearl	B.A., Queen's	Classics (Int.)		1918	4½			1,250
	Hall, Marjorie S. (Int.)	B.A., Tor.	Mods. and Hist.	Phys. Cul.	1918	½			1,200
	Pridham, C. Irene		Art (Int.), Com.	Phys. Cul.	1918	5½			1,150
	Traver, Lillie A.	B.A., Queen's	Eng. and Hist (Int.)	Phys. Cul.	1918	2½	3½		1,100

*On Military Service from Nov., 1915, to Oct., 1917.

List of Principals and Assistants of Collegiate Institutes and High Schools, January, 1919—Continued

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								Principal	Male Assistants	Female Assistants
								$	$	$
Smith's Falls..	Rose, Robert C.	B.A., Tor.	Math.		1907	27	3½	2,050	.....	.....
	Burns, Charles J.	B.A., Queen's	Classics		1912	9½	....	.....	1,700	.....
	McWhorter, Mary V.	B.A., Tor.	Mods. and Hist.		1916	9	....	.....	.....	1,400
	Bunton, George W.	B.A., Queen's	Science	Agr. and Hor..	1916	7½	4	.....	1,700	.....
	McCallum, Mary A.	B.A., Queen's	Phys. Cul. (Int.), Eng. & H.		1916	3½	2½	.....	.....	1,100
	Ryan, Mae H.	B.A., Queen's	Art (Int.)		1915	3½	....	.....	.....	1,000
	Keegan, Joseph D.		Com.		1917	13½	13	.....	1,400	.....
	Ferguson, William T.		(Man. Train. Instr.)		1912	7	12	.....	1,600	.....
Stratford.....	Mayberry, Charles A.	B.A., LL.B., Tor....	Classics		1891	35	2	2,500	.....	.....
	Malcolm, George	B.A., Queen's	Eng. and Hist.		1890	34	6	.....	1,950	.....
	Sprung, Whitfield L.	B.A., Tor.	Math. and Phys.		1908	15	5	.....	2,100	.....
	Marty, Sophie E.	M.A., Queen's	Eng., Hist., Fr. and Ger..		1900	26	3	.....	.....	1,950
	McMillan, William J.	B.A., Tor.	Science		1912	9½	5	.....	1,900	.....
	McQueen, Rose J.	B.A., Tor.	Eng. and Hist.		1912	11	1	.....	.....	1,850
	Taylor, Daisy E.				1914	13	4½	.....	.....	1,300
	McCrimmon, Leon R.	M.A., McM.			1914	4½	....	.....	1,500	.....
	Davis, Irene P.	B.A., Tor.	Art	Phys. Cul.	1916	4½	3	.....	.....	1,200
	Day, John W.	*			1918	9½	14	.....	1,500	.....
	Bell, John A.			Ag. & H., Ph. Cl	1918	6	....	.....	1,500	.....
	Morgan, Pearl S.		Phys. Cul. (Int.) Com.		1918	2½	2	.....	.....	1,350
	Mowbray, Tena P. (Int.)		(Household Sci. Instr.)		1918	½	3	.....	.....	900
Strathroy.....	Sexton, James H.	M.A., Queen's	Science		1914	22	9	2,000	.....	.....
	Hardy, John H.	B.A., Tor.	Phys. Cul. (Int.). Classics		1917	2½	....	.....	1,500	.....
	Henry, Elizabeth C.	B.A., Queen's	Fr. & Ger., Mods. & Hist..		1913	9½	13	.....	.....	1,250
	Martyn, Tena		Phys. Cul. (Int.), Art		1916	2½	1	.....	.....	1,050
	Pirie, Lizzie B.		Com. (Int.)	Phys. Cul.	1916	2½	1	.....	.....	1,050
	McKillop, Archie F. (Int.)	B.A., Queen's	Math.	Phys. Cul.	1919	1	....	.....	1,300	.....

Toronto, Harbord St.	Hagarty, Edward W.	M.A., Tor.	Classics		1892	35	....	3,400	.....	.....
	Glassey, David A.	B.A., Tor.	Classics		1906	24½	.....	.....	2,600	.....
	Wightman, Robert	B.A., Tor.	Math.		1908	21	.....	.....	2,600	.....
	Ivey, Thomas J.	M.A., Tor.	Science		1909	22½	.....	.....	2,600	.....
	Irwin, Herbert W.	B.A., Tor.	Mods. and Hist.		1915	17	.....	.....	2,600	.....
	Ayers, M. Huntley	M.A., Queen's	Science		1911	14½	8	.....	2,300	.....
	Fraser, Charles G. (Jr.)	M.A., Tor.	Science		1910	8½	.....	.....	2,300	.....
	Carlyle, John A.	B.A.,Tor.; M.A.,Harv	Eng. and Hist.	Phys. Cul.	1911	9	2	.....	2,200	.....
	Hawkins, Maud M.	B.A., Tor.	Eng., Hist., Fr. & Ger.		1911	18	.....	.....	.....	2,400
	Knight, Carrie M.	M.A., Tor.	Class., Eng. & Hist.	Phys. Cul.	1913	9½	.....	.....	.....	2,200
	Young, Edmund T.	.....	.....		1911	12	20	.....	2,400	.....
	Adams, John H.	B.A., Tor.	Phys. Cul.		1913	10½	.....	.....	2,300	.....
	Corbett, L. Hamilton	M.A., Tor.	Mods. and Hist.		1913	5½	.....	.....	2,200	.....
	Robinson, Frances A.	B.A., Tor., M.A., Col.	Phy. Cl. (Int.), Eng &Hist		1915	7½	2½	.....	.....	2,100
	MacGregor, Mrs. Jeanette E.	.....	Phy. Cl. (Int.), Art, Com.		1917	9	4	.....	.....	1,900
	Rochat, Mrs. Norma D.	M.A., Tor.	Mods. and Hist.	Phys. Cul.	1914	9	.....	.....	.....	2,200
	Sanderson, Oliver N.	B.A., Tor.	.....		1916	3½	.....	.....	1,700	.....
	Fitch, Martha A.	B.A., McM.	Math.		1918	4	12	.....	.....	1,600
	Sealey, Ethel M.	B.A., Tor.	Phy. Cl. (Int.), Mods. & H		1918	17	1	.....	.....	2,500
	Asbury, Frank C. .....**	M.A., Tor.	Math. & Phys. (Int.)		1919	2	....	.....	1,900	.....
Toronto, Humberside.	Colbeck, Franklin C.	B.A., Vic.	Classics, Eng.		1894	32	1½	3,400	.....	.....
	Gourlay, Richard	B.A., Tor.	Classics, Math.		1893	32	.....	.....	2,600	.....
	Charles, Henrietta	B.A., Tor.	Eng., Fr. and Ger.		1901	32	.....	.....	.....	2,600
	Johnston, Frederick J.	M.A., Tor.	Science		1904	21	3	.....	2,600	.....
	Bennett, John S.	B.A., Tor.	Classics		1909	10½	6	.....	2,400	.....
	Jermyn, Percy T.	M.A., Tor.	Eng. and Hist.		1915	18	2	.....	2,600	.....
	Stewart, Kate L.	B.A., Tor.	Eng. and Hist.	Phys. Cul.	1911	11	½	.....	.....	2,200
	Morrow, John D.	B.A., Tor.	Classics	Phys. Cul.	1913	22½	.....	.....	2,200	.....
	Patterson, Arnott M.	M.A., Queen's	Science		1913	10½	½	.....	2,300	.....
	Clarke, Bruce W.	B.A., McM.	Sci.(Int.), Ph. C., Math.& P.		1913	7½	.....	.....	2,100	.....
	Barr, Annie E.	B.A., Tor.	Mods. and Hist.	Phys. Cul.	1913	6½	.....	.....	.....	2,000
	Colbeck, Wilhelmina L.	B.A., Tor.	Mods. and Hist.	Phys. Cul.	1913	6½	.....	.....	.....	2,000
	McQuarrie, Ernest C.	B.A., Tor.	Phys. Cul.		1915	6½	.....	.....	1,900	.....
	McDiarmid, Janetta M. (Int.)	M.A., Tor.	Math.	Phys. Cul.	1915	6	.....	.....	.....	1,800
	Hatch, Salem B.	.....	Art, Com.		1909	14	8	.....	2,400	.....
	Evans, William A.	.....	.....		1904	14½	20	.....	2,400	.....
	Belcher, Norah T.	B.A., Tor.	Phys. Cul. (Int.) Classics		1918	6½	.....	.....	.....	1,700

NOTE.—Paul Rochat, Walter J. Lamb, and Selwyn P. Griffin, teachers in Harbord Street C. I., are on Active Service.
*On Military Service from D ec., 1915, to Nov., 1917. **On Military Service from June, 1917, to Feb., 1919.

List of Principals and Assistants of Collegiate Institutes and High Schools, January, 1919—Continued

Collegiate Institutes	Names of Teachers	Degrees	Specialists	Elementary and Intermediate Certificates (In the case of Agr. and Hor. the Certificate is Intermediate.)	Date of appointment	No. of years' experience in a High School or Coll. Inst.	No. of years in a Public School	Salaries		
								Principal	Male Assistants	Female Assistants
								$	$	$
Toronto, Jarvis	Jeffries, John	B.A., Tor.	Eng., Hist., Fr. & Ger.		1907	31	1	3,000	.....	.....
	Jennings, William A.	B.A., Tor.	Science		1907	12½	.....	.....	2,500	.....
	Hardy, Edwin A.	B.A., D.Pæd., Tor.	Eng., Fr. and Ger.		1910	28	.....	.....	2,400	.....
	Thomas, Janie	M.A., Tor.	Eng. and Hist.		1882	36½	1	.....	.....	2,400
	Halbert, Edwin J.	B.A., Tor.	Science		1910	9½	3	.....	2,300	.....
	Murdoch, William E.	B.A., Tor.	Classics		1910	8½	16	.....	2,400	.....
	Barnes, Charles H.		Phys. Cul.		1910	8½	16	.....	2,400	.....
	O'Connell, Marguerite E.	B.A., Queen's	E. & H. (Int.), Ph.C., F.&G.		1908	10½	3	.....	.....	2,400
	Tapscott, Harry B.	M.A., McM. & Harv.	Fr. and Ger.		1912	14	6½	.....	2,600	.....
	Milburn, Clement A.	B.A., Tor.	Math.		1912	10½	.....	.....	2,100	.....
	Durie, Helen F.	M.A., Tor.	Phys. Cul.		1913	5½	.....	.....	.....	2,100
	Barnes, Charles L.	B.A., Tor.	Classics		1913	16	4½	.....	2,600	.....
	Sinclair, John	B.A., Tor.	Math.		1917	30	8	.....	2,600	.....
	Allin, Arthur E.	M.A., Tor.	Art		1913	5½	.....	.....	2,000	.....
	Smith, Arthur F. †	B.A., McM.			1914	7½	.....	.....	2,000	.....
	Spence, Ruth E.	B.A., Tor.	Mods.&H., (Int.), Phys. Cul.		1915	4	.....	.....	.....	1,800
Toronto, Malvern Ave	Lehmann, Carl A. K.	B.A., Tor.	Science		1910	23	2	3,400	.....	.....
	Horton, Charles W.	B.A., Queen's	Art, Eng. and Hist.		1911	25	7	.....	2,600	.....
	Graham, Louis H.	M.A., Tor.	Science		1912	19	5	.....	2,600	.....
	Lingwood, Frederick H.	M.A., Tri., D.Pæd., Qns	Classics		1910	26	.....	.....	2,400	.....
	Barr, Lydia A.	B.A., Tor.	Mods. and Hist.		1908	26	9	.....	.....	2,350
	Dafoe, Helen I. †	B.A., Tor.	Ph. Cl. (Int.), Mod. & His.		1914	5½	.....	.....	.....	1,900
	Clarke, Lorne H.	B.A., McM.	Phys. Cul., Math. & Phys.		1914	4½	.....	.....	2,000	.....
	Hisey, Abraham	B.A., McM.	Phys. Cul. (Int.), Science		1917	3½	.....	.....	1,500	.....
	Reade, Jessie B. (Int.)	B.A., Tor.	Classics, Phys. Cul.		1918	1½	.....	.....	.....	1,500
	Symons, Helen F.	B.A., Tor.	Eng. & Hist., Phys. Cul.		1918	3½	.....	.....	.....	1,500

Toronto, Oakwood ...	Gray, Robert A.	B.A., Tor.	Math.		1910	34	....	3,400	.....	.....
	Clarke, Frederick H.	B.A., Tor.	Eng. & Hist., Fr. & Ger.		1908	23	....	.....	2,600	.....
	Kennedy, Thomas	M.A., Queen's	Math.		1908	19	2¾	.....	2,600	.....
	Jowett, Albert E.	B.A., Queen's	Science		1908	31	3½	.....	2,600	.....
	Brown, Harry W.	B.A., Tor.	Eng., Hist., Fr. & Ger.		1915	24	....	.....	2,500	.....
	McKinley, James M.	B.A., Tor.	Classics		1916	19	....	.....	2,600	.....
	Ketcheson, Florence B.	B.A., Tor.	Mods. and Hist.		1908	13	....	.....	.....	2,400
	Shortill, Robert N.		Manual Training		1912	6½	26	.....	2,200	.....
	McDonald, Evelyn	M.A., Tor.	Mods. & H., Phy. C. (Int.)		1913	6½	....	.....	.....	1,900
	Ball, Alice I. N.	M.A., Tor.	Math.&Phys., Ph. C. (Int.)		1913	5½	....	.....	.....	1,900
	Hanna, William E.	B.A., Queen's	Mods. & His., Ph. C. (Int.)		1914	5½	5	.....	2,100	.....
	Barton, Ambrose R.	B.A., Tor.	Art, Phys. Cul. ....(Int.)		1914	4½	2	.....	1,900	.....
	Quail, May F.	M.A., Tor.	Mods. & H. (Int.), Fr. & G.		1915	5½	....	.....	.....	1,900
	Bell, Edwin T.	B.A., McM.	Science	Ag.&Hor.,Ph.C.	1915	4½	....	.....	1,800	.....
	Mowat, John H. ....(Int.)	B.A., Queen's	Eng. & Hist., Phys. Cul.		1916	3	2	.....	1,700	.....
	Evans, Rennie Mabel..(Int.)	B.A., Tor.	Math. & Phys., Art, Com.		1916	3	....	.....	.....	1,600
	Thoms, Clarence J. ..(Int.)	B.A., McM.	Eng. and Hist.		1917	1½	3	.....	1,500	.....
	Findlay, Edythe C. ..(Int.)	B.A., Tor.	Household Science	Phys. Cul.	1918	½	½	.....	.....	1,400
	Phillips, Fitzallan ....(Int.)	M.A., Tor.	Math. and Phys.	Phys. Cul.	1918	½	1	.....	1,500	.....
	Zuern, Maude E.	M.A., Tor.	Classics	Phys. Cul.	1918	4½	....	.....	.....	1,500
	Jenkins, Jas. T.* .....(Int.)	B.A., Tor.	Math. and Phys.		1919	½	4	.....	2,000	.....
	Davidson, Viola M.	B.A., Queen's	Art, Science .....(Int.)		1918	6½	1	.....	.....	1,500
Toronto, Parkdale ...	Smith, Gilbert A.	B.A., Tor.	Science		1889	37	4	3,400	.....	.....
	Spence, Nellie	B.A., Tor.	Eng. and Classics		1889	30	1	.....	.....	2,600
	Hillock, Julia S.	B.A., Tor.	Fr. and Ger.		1900	25	....	.....	.....	2,600
	Cosens, Absalom	M.A., Ph.D., Tor.	Science		1904	22	2	.....	2,600	.....
	Mills, John H.	M.A., Queen's	Classics		1906	28	1	.....	2,600	.....
	Phillips, Wm. A.	B.A., Tor.	Fr., Ger., Eng.		1906	30	1½	.....	2,400	.....
	Reid, Thos. E.	B.A., Tor.	Phys. Cul. .....(Int.)		1905	14	8½	.....	2,400	.....
	Hutchinson, John I.	M.A., Tor.	Eng. and Hist. ....(Int.)		1909	10	....	.....	2,300	.....
	Darroch, William F.		Phys. Cul. .....(Int.)		1910	9	16	.....	2,400	.....
	Dugit, Rosalie A.	M.A., Tor.	Phys. Cul. (Int.) Classics		1913	10½	....	.....	.....	2,200
	Bicknell, Harry E.	A.O.C.A.	Art		1913	7½	....	.....	2,100	.....
	Martin, William H.	B.A., Tor.	Science		1916	4½	2	.....	1,800	.....
	Skirrow, William A.	M.A., Queen's	Math.		1917	8½	....	.....	1,800	.....
	Keith, George W. **	B.A., Tor.	Math.		1912	20	....	.....	2,600	.....
	Edwards, Grace	M.A., Tor.	Mods. & Hist. ....(Int.)	Phys. Cul. ...	1918	10½	....	.....	.....	1,700

NOTE 1.—Frank H. Wood, a teacher of Malvern Ave. C.I., is on Ac tive Service.

NOTE 2.—Albert W. Dunkley, Luther H. Kirby, G. B. McQuarrie, and Isabel Sutherland, teachers of Oakwood C. I., are on Active Service.

*On Military Service from Jan., 1916, to Jan., 1919.

**On Military Service from Feb., 1916, to May, 1917.

†On Leave of Absence.

List of Principals and Assistants of Collegiate Institutes and High Schools, January, 1918—Continued

Collegiate Institutes	Name of Teachers	Degrees	Specialists	Elementary and Intermediate Certificates (In the case of Agr. and Hor. the Certificate is Intermediate.)	Date of appointment	No. of years' experience in a High School or Coll. Inst.	No. of years in a Public School	Salaries		
								Principal	Male Assistants	Female Assistants
								$	$	$
Toronto, Riverdale ..	Moore, James R. .....*	M.A., Queen's	Science	.....	1907	20	½	2,800	.....	.....
	Wren, John S.	B.A., Tor.	Math.	.....	1907	20	....	.....	2,600	.....
	Willson, Alice M.	B.A., Tor.	Fr. and Ger.	.....	1908	15	4	.....	.....	2,600
	Kidd, Truman W.	B.A., Queen's	Art	.....	1909	13½	6	.....	2,400	.....
	Rogers, William H.	M.A., Trin.	Math.	.....	1909	16½	2	.....	2,400	.....
	Dunnett, Alfred H.	B.A., Queen's	Phys. Cul.	.....	1911	7½	11½	.....	2,300	.....
	Munro, Peter F.	M.A.,Qns.,B.Pæd.,Tor	Classics	.....	1913	18	½	.....	2,600	.....
	Nichol, S. Winnifred	M.A., Tor.	Phys. Cul., Mods. & Hist..	.....	1914	8½	....	.....	.....	2,000
	Flock, F. Arthur	B.A., Tor.	Science	.....	1915	9	2½	.....	2,000	.....
	Goring, Ralph B.	B.A., Tor.	Math.&Phys. (Int.), Ph. Cul	.....	1915	4½	2½	.....	1,900	.....
	Lewis, Nora	B.A., Tor.	Classics	Phys. Cul. ...	1916	5½	....	.....	.....	1,800
	Cook, Alta-Lind	B.A., Tor.	Mods. and Hist.	Phys. Cul. ...	1917	4½	....	.....	.....	1,700
	Blackhall, Olive .....(Int.)	B.A., Tor.	Eng. and Hist.	.....	1918	3½	....	.....	.....	1,500
	Kells, Emma M.	M.A., Tor.	Mods. and Hist.	Phys. Cul., Art.	1918	5	....	.....	.....	1,500
	Philips, Mrs. E. Muriel	B.A., Tor.	Household Science	.....	1914	5	....	.....	.....	1,600
	Faw, Edward	.....	Manual Training	.....	1914	4½	21	.....	2,100	.....
	Watson, Erwin H. A. .....**	B.A., Tor.	Mods. and Hist.	.....	1919	16	3	.....	2,600	.....
Vankleek Hill	Pentland, George E. .....***	M.A., Queen's	Phys. Cul. (Int.), Math..	Agr. & Hor. .	1918	11½	5½	1,800	.....	.....
	Stinson, Mildred E.	B.A., Tor.	Mods & His. (Int.), Phy.Cl	.....	1917	3½	....	.....	.....	1,100
	Smith, Sadie L.	B.A., Tor.	Science	Art	1917	3½	....	.....	.....	1,300
	Stillwell, Laura M.	B.A., Queen's	Art .....(Int.)	.....	1917	3	....	.....	.....	1,000
	Upshall, Benjamin A.	B.A., Tor.	Classics	.....	1919	4	....	.....	1,500	.....
	Found, Ada C. .....(Int.)	B.A., McM.	Com.	Phys. Cul. ...	1918	1½	1	.....	.....	1,000
Windsor	Gavin, Frederick P.	B.A., Queen's	Science	.....	1892	27	....	2,900	.....	.....
	Bell, Frederick H.	B.A., Tor.	Eng., Hist., Fr. & Ger....	.....	1898	25½	....	.....	2,000	.....
	Reid, Robert	B.A., Tor.	Eng., Hist., Fr. & Ger....	.....	1909	25	4	.....	1,950	.....
	Brunt, Robert A.	B.A., Tor.	Science	.....	1905	16	1	.....	1,950	.....

	Crassweller, Christopher L..	B.A., Tor.	Math.		1913	34	2½	1,950	
	Lowe, William D.	M.A., Queen's	Eng. & Hist. (Int.), Class.		1908	10¾		1,950	
	Cunningham, Evangeline	B.A., Tor.	Phys. Cul.		1909	14			1,550
	Srigley, Edgar C.		Com.		1911	24	5	1,800	
	Thompson, Peter M.	M.A., Queen's	Science		1913	18⅔	5	1,950	
	Belton, Mildred	B.A., Tor.		Phys. Cul.	1915	4½			1,200
	O'Donoghue, Mary H.	M.A., Tor.	Phys. Cul. (Int.) Mods.&H		1915	10			1,800
	Wheelton, Leonard		Art		1915	10¾	2	1,800	
	Campbell, George S.	B.A., Tor.	Math. and Phys.	Phys. Cul.	1916	4⅔	2	1,950	
	Downey, William H.		Phys. Cul. (Int.)		1916	2⅔	18	1,800	
	Doherty, Mabel O.		Art, (Int.), Ph. Cl., Com.		1918	16	2		1,550
	Cleary, Norah	B.A., Tor.			1900	17⅔			1,500
	Clerke, Mary E. (Int.)	B.A., Tor.	Household Sci.		1917	1½	½		1,200
	Moffat, Hazel J. G. (Int.)	B.A., Tor.	Household Sci.		1918	⅔	1		1,000
	Carson, William L.		Man. Train. (Int.)		1918	⅔	6	2,000	
Woodstock	Salter, Wesley J.	B.A., Tor.	Classics		1907	11⅓	2,200		
	Lawr, John M.	B.A., Queen's	Math. (Int.)	Phys. Cul.	1917	7⅓	3	1,800	
	Buck, Charles S.		Art, Phys. Cul. (Int.)		1914	4⅓	1½	1,000	
	Robinson, Mary A.		Phys. Cul. (Int.)		1910	8	10		1,050
	MacKay, Emma L.			Phys. Cul.	1910	8	3½		900
	Cragg, Estella R.		Phys. Cul. (Int.), Com.		1914	9	2⅓		1,400
	Dengate, E. Winnifred	B.A., McM.	Mods. & Hist. (Int.)	Phys. Cul.	1918	8⅓	1		1,100
	Stock, Dora H. (Int.)	M.A., Queen's	Mods. and Hist.	Phys. Cul.	1918	⅓			1,100
	Murray, Annie D. (Int.)	B.A., Tor.	Phys. Cul.		1918	⅔			1,000
	Hodgins, Ekron P.	B.A., Tor.	Science	Phys. Cul.	1919	5⅔		1,800	
	Millar, Annie B. (Int.)	B.A., McM.	Eng. and Hist.	Art	1919	1⅓	5		1,100
	Dent, Beatrice (Int.)				1918	⅔	1½		875
	Mercer, John S.		Manual Training		1905	13	6⅔	1,600	
	White, Lila K. G.		(Household Sci. Instr.)		1911	7	4½		900
High Schools:									
Alexandria	MacKay, Donald	M.A., Tor.	Classics		1896	29	2½	1,800	
	Sweeney, Agnes C.			Art, Phys. Cul	1909	13	3½		1,250
	Ostrom, Ethel L.	B.A., Queen's	Art (Int.)		1916	7			1,250
	Fraser, Mary A.	B.A., Queen's			1918	4⅓			1,400
Alliston	Davidson, Hugh	B.A., Tor.		Phys. Cul.	1909	32	2	1,600	
	McArthur, Annie M.	B.A., Queen's	Fr. and Ger. (Int.)		1914	7	¼		1,050
	Miller, Gladys M. (Int.)		Art	Phys. Cul.	1917	1½	3		900
Almonte	Millar, Frederick G.	B.A., Tor.		Phys. Cul.	1914	15		1,600	
	Matthews, Jessie E.	B.A.,Qn's; M.A.,Tor.		Phys. Cul.	1908	10⅔	3		1,100
	Page, Jennie	B.A., Queen's		Art	1918	2⅔	16		1,100
	McNeil, Lena L. (Int.)			Art	1918	1	½		950

*Acting Principal during the absence of W. C. Michell—on Active Service.

**On Military Service from April, 1916, to Sept., 1918. ***On Military Service from Aug., 1915, to April, 1917.

List of Principals and Assistants of Collegiate Institutes and High Schools, January, 1919—Continued

High Schools	Names of Teachers	Degrees	Specialists	Elementary and Intermediate Certificates (In the case of Agr. and Hor. the Certificate is Intermediate.)	Date of appointment	No. of years' experience in a High School or Coll. Inst.	No. of years in a Public School	Salaries		
								Principal	Male Assistants	Female Assistants
								$	$	$
Amherstburg.	Overholt, B. Percy		Phys. Cul. (Int.)		1910	10½	4	1,500	.....	.....
	Wiley, Madge E. (Int.)			Phys. Cul.	1918	1½	1	.....	.....	950
	Ney, Louise E.		Art (Int.)	Phys. Cul.	1918	7	3	.....	.....	1,050
Arnprior	Rand, Wilfred E.	B.A., Tor.	Math	Phys. Cul.	1910	26	1	2,000	.....	.....
	Hall, Margaret M. S.	B.A., Queen's		Art, Phys. Cul	1912	8½	5	.....	.....	1,150
	Stothers, Minerva E.	B.A., Queen's	Art (Int.)		1916	10½	....	.....	.....	1,150
	Raitt, Helena G.	M.A., Queen's	Fr. and Ger.	Phys. Cul.	1917	6	....	.....	.....	1,150
	Shales, Walter E.	M.A., Queen's	Phys. Cul., Science	Agr. & Hor.	1918	4½	5	.....	1,600	.....
Arthur	McRitchie, Alexander R.	B.A., Tor.	Science	Agr. & Hor.	1913	21½	7	1,800	.....	.....
	Murphy, Edith A.	B.A., Queen's		Art	1917	5	....	.....	.....	900
	Tuck, Ella M. (Int.)	B.A., Tor.		Phys. Cul.	1918	4	....	.....	.....	900
	Dobson, Viola J.	B.A., Tor.		Art, Phys. Cul	1918	5½	....	.....	.....	900
Athens	Burchell, James E.	B.A., Queen's		Agr. & Hor.	1915	10½	12	1,800	.....	.....
	Donnelley, Mina (Int.)	B.A., Queen's	Classics		1917	1½	....	.....	.....	1,000
	Ferris, Kathleen B.	B.A., Tor.	Art (Int.)	Phys. Cul.	1918	3½	....	.....	.....	1,000
	Wallace, Mary H.	B.A., Tor.			1918	2½	1½	.....	.....	1,000
	Case, H. James		Phys. Cul. (Int.)		1918	13	13	.....	1,400	.....
Aurora	Ewers, Charles F.	B.A., Queen's			1915	12	12	1,800	.....	.....
	Cameron, Murray	B.A., Queen's		Phys. Cul.	1918	2½	....	.....	1,400	.....
	Morgan, Grace (Int.)	B.A., Tor.	Mods. and Hist.	Phys. Cul.	1918	½	4	.....	.....	1,200
	Stevens, Myrtle H.	B.A., Tor.			1918	3½	1	.....	.....	1,200
Avonmore	Shaver, Charles A.	B.A., Queen's	Classics (Int.)	Phys. Cul.	1917	9½	4½	1,550	.....	.....
	Pacey, Mabel I.		Phys. Cul. (Int.)	Art	1914	4½	½	.....	.....	900
	Merry, Nellie P. (Int.)	B.A., Queen's	Eng. and Hist.		1918	2	....	.....	.....	850

Aylmer	Awde, Elgin O.	B.A., Queen's			Phys. Cul.	1917	8½	2	1,800		
	Rutherford, Walter W.	B.A., Tor.	Math.			1883	44	1		1,800	
	Byram, Kathleen A.	B.A., Tor.	Mods. and Hist., Art			1916	2½				1,200
	Allen, Eula P.				Phys. Cul.	1916	2½	2			850
Beamsville	Leighton, Robt. H.	B.A., Queen's				1918	11½	19	1,600		
	Stewart, Winona	B.A., Queen's			Phys. Cul.	1916	3½	1			900
	Jones, Gwendolyn B.		Art	(Int.)		1916	2½				900
Belleville	MacLaurin, Peter C.	B.A., McM.	Science			1909	14		2,300		
	Knight, William W.	B.A., Queen's	Math.			1892	30	5		1,850	
	Libby, Minnie F.	B.A., Vic.	Eng. & Hist., Fr. & Ger.			1910	23	4			1,550
	Milburn, Edward F.	M.A., Trin.				1870	48			1,450	
	Hitchon, Claire H.	M.A., McM.	Mods. and Hist.	(Int.)		1913	8				1,400
	Irwin, Norman A.	B.A., Queen's	Phys. Cul.			1914	6½	1½		1,550	
	Clark, Donald M.		Art (Int.), Com.		Phys. Cul.	1915	7½			1,550	
	Wilson, James J.	(Int.) B.A., Queen's				1917	2	7		1,350	
	Thrasher, Albert E.	(Int.)				1917	1½	24½		1,350	
	Affleck, Archibald A.	B.A., McM.	Classics			1919	5½			1,700	
	Alcombrack, Edna A.	B.A., Tor.				1919	5	1			1,100
	Ritchie, Mrs. Ora B. K.		(Household Sci. Instr.)			1916	3½	2½			850
	Teacher to be appointed.										
Bowmanville	Morrison, William J.	B.A., Tor.	Science	(Int.)	P. C., A. & H.	1918	5½	5	1,800		
	McConochie, Robert G.					1916	7½	1½		1,300	
	Smithson, Laura A.	M.A., Tor.	Classics			1916	6½				1,200
	Smith, Isabel K.	B.A., Tor.	Art		Phys. Cul.	1913	11				1,050
Bracebridge	Shannon, Samuel	B.A., Tor.				1908	11	3	2,000		
	Runians, Minnie C.	(Int.) B.A., Tor.	Eng. and Hist.		Phys. Cul.	1918	2	8			900
	Haight, Annie	(Int.) B.A., Queen's				1919		1			900
	Logan, H. Beatrice	(Int.)			Art	1919	1½				850
Bradford	Wightman, Stanley	B.A., Queen's			Phys. Cul.	1915	14½	2½	1,650		
	Henry, Esther A.	(Int.) B.A., Tor.	Art			1918	1½	4½			950
	Curry, Jessie E.	(Int.)			Phys. Cul.	1918	½	1			650
Brampton	Fenton, William J.	B.A., Tor.	Classics			1891	28	1½	2,050		
	Halnan, Lemen R.	M.A., Trin.	Math.			1905	15	3		1,750	
	Hutchinson, May R.		Phys. Cul.	(Int.)	Art	1910	15	6			1,500
	Percy, Herbert A.					1914	10	2		1,700	
	Hamilton, Margaret A.	B.A., Tor.	Mods. and Hist.		Phys. Cul.	1915	10				1,500

List of Principals and Assistants of Collegiate Institutes and High Schools, January, 1919—Continued

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								Principal	Male Assistants	Female Assistants
								$	$	$
Brighton	Howson, Bruce F.	B.A., Queen's	Math. and Phys.	.....	1918	9½	2	1,600	.....	.....
	Garrett, Evelyn C.	.....	.....	Art, Phys. Cul..	1918	7	3	.....	.....	1,000
	Shepley, Addie M. ...(Int.)	.....	.....	Phys. Cul.	1919	1½	....	.....	.....	800
Caledonia ...	Hicks, Thomas J.	B.A., Queen's	.....	Phys. Cul. ...	1913	6½	11½	1,700	.....	.....
	Lawrence, Charles F.	B.A., Tor.	Math. and Phys. ...(Int.)	Phys. Cul.	1915	3½	5½	.....	1,400	.....
	Gillespie, Grace A.	B.A., Queen's	.....	Phys. Cul. ...	1918	4	½	.....	.....	1,000
	MacGregor, Helen J.	.....	Art .....(Int.)	.....	1918	4	....	.....	.....	900
Campbellford..	Moffat, Thomas E.	B.A., Queen's	.....	.....	1916	12	2	2,000	.....	.....
	Quinlan, Frances M...(Int.)	B.A., Tor.	Mods. and Hist.	Phys. Cul.	1917	1½	1½	.....	.....	1,100
	Mackintosh, Agnes W. (Int.)	B.A., Queen's	Eng. & His., Mods. & His.	Phys. Cul.	1917	1½	2	.....	.....	1,100
	Hume, Annie I. .....(Int.)	B.A., Queen's	Eng. & His.	Art, Phys. Cul..	1917	5½	....	.....	.....	1,150
	Harris, Una M.	.....	Phys. Cul. .....(Int.)	.....	1919	3	....	.....	.....	900
	Steele, Walter S. .....(Int.)	.....	Phys. Cul.	.....	1919	2½	7½	.....	1,000	.....
Carleton Place.	Wethey, Edmund J.	B.A., Triu.; M.A., Tor	Math.	.....	1910	18	1	1,700	.....	.....
	Ewing, Florence May	B.A., Queen's	.....	Phys. Cul. ..	1910	14½	2	.....	.....	1 200
	McNeely, Priscilla V. M. ...	M.A., Trin.	Science	.....	1913	9	1	.....	.....	1,200
	Norton, Christine H.	.....	.....	Art, Phys. Cul.	1917	9½	....	.....	.....	1,000
Cayuga.....	Skeele, James E.	B.A., Tor.	.....	.....	1897	26	....	1,600	.....	.....
	Kennedy, Anna .....(Int.)	B.A., Tor.	.....	.....	1919	2½	....	.....	.....	1,300
	Grant, Dorothy J. ....(Int.)	B.A., Mc.M.	Mods. and Hist., Art	Phys. Cul. ...	1917	2	....	.....	.....	1,000
	Parker, Olive E. .....(Int.)	.....	.....	.....	1918	½	2	.....	.....	750
Chatsworth...	Butcher, Cecil W.	B.A., Queen's	Math. .....(Int.)	.....	1919	6	3½	1,600	.....	.....
	Eby, Emma L	.....	.....	Art, Phys. Cul.	1912	6½	4½	.....	.....	950

Chesley	Gilmour, Allan	B.A., Queen's		Phys. Cul.	1917	13	1½	1,550		
	McEachran, Mary	B.A., Queen's			1916	12½	7			1,350
	McLachlin, Janet E.		Art (Int.)		1917	3½	4			900
	Evans, Margaret E. (Int.)	B.A., Tor.			1918	½	1			850
Chesterville	Ball, Emerson E.	B.A., Tor.	Mods and Hist.		1915	11½		1,500		
	O'Neill, Mary M. (Int.)	B.A., Queen's	Phys. Cul.		1917	2	½			1,000
	Findlay, Margaret S. (Int.)	B.A., Tor.			1919	1	1			900
Colborne	Bellamy, Wesley	B.A., Vic.		Art	1892	29	3½	1,600		
	Hinds, Margaret J.			Phys. Cul.	1910	8½	3½			1,000
Cornwall	Caldwell, Alexander	B.A., Royal Dublin.	Com.		1912	6½		1,800		
	Smith, Lyman C.	B.A., Vic.	Classics, Eng. and Hist.		1912	40½	2		1,700	
	Birchard, Alexander F.		Phys. C. (Int.) Com., Art		1898	24	12		1,600	
	Norris, Arthur D.	B.A., Tor.			1907	12	7		1,475	
	Nugent, Eleanor	B.A., Tor.	Fr. and Ger.	Phys. Cul.	1914	5				1,275
	Cumming, Eva M.	B.A., Queen's		Phys. Cul.	1915	3½	2½			1,075
	Hendry, Earl D.		Phys. Cul.		1916	3½	2		1,400	
	Campbell, Mrs. Ruby C. (Int.)	B.A., Queen's		Phys. Cul.	1916	3½	4			1,025
	Delmage, Edith R.	B.A., McM.	Math.	Phys. Cul.	1918	11½	2			1,400
	MacKenzie Helena I. (Int.)		(Household Sci. Instr.)		1917	1½	2			700
Deseronto	James, George M.	B.A., LL.B., Tor.		Art, Phys. Cul.	1915	7	15	1,650		
	Stocker, Eva R.		Phys. Cul. (Int.)		1915	7½	4½			1,000
	Kennedy, Jessie	B.A., Queen's	Phys. Cul. (Int.)		1917	3	½			900
Dundalk	Wright, David T.			Phys. Cul.	1911	12½	10	1,550		
	Farley, Hazel (Int.)	B.A., Tor.			1918	½				900
	Cowan, Jessie I. (Int.)	B.A., Tor.		Art, Phys. Cul.	1918	½	1			800
Dundas	Tuke, William H.	B.A., Queen's	Phys. Cul.		1914	13		2,035		
	Cowan, Euphemia J.	M.A., Tor.	Phys. Cul. (Int.)		1913	8½				1,500
	Brogden, Mrs. Irene M.	B.A., Tor.		Phys. Cul., Art	1914	5½	3			1,265
	Hyde, Catherine I.	B.A., Tor.	House. Sci., Phy. Cl. (Int.)		1915	3½	5			1,100
	Cummer, May E.		Com. (Int.)		1919	13½				1,350
Dunnville	Thompson, John F.	M.A., D.Paed., Tor.	Classics		1918	15	1½	1,700		
	Archibald, Robert H.			Phys. Cul.	1913	8½			1,550	
	Moir, Mary Isabel	B.A., Tor.		Art	1917	7½				1,000
	Stewart, James H.		Art	Phys. Cul.	1918	4½	2		1,400	
	Herington, Bertha C. (Int.)	B.A., Tor.	Mods. and Hist.	Phys. Cul.	1918	1½				1,000
Durham	Allan, Thomas			Phys. Cul.	1888	30	12	1,500		
	Weir, Julia M.	B.A., Queen's	Art		1915	6½	12			1,000
	Horne, Mrs. Laura E. (Int.)	B.A., Tor.		Art, Phys. Cul.	1918	2½				900

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								Principal	Male Assistants	Female Assistants
								$	$	$
Dutton	Elliott, Thomas W.	B.A., Tor.	Science		1918	12½	11	1,800		
	Kinnear, Jennie A.	B.A., Queen's	Math.		1917	4	....			1,150
	Lees, Margaret A.	B.A., Queen's	Mods. and Hist. .. (Int.)	Phys. Cul.	1917	2	4			1,000
	Fraser, Bertha F.	B.A., West.		Phys. Cul., Art	1918	2½	....			950
Elora	Morden, Frances D.	B.A., Tor.	Phys. Cul.		1919	12	2	1,500		
	Stewart, Eva Grace ..(Int.)	B.A., Queen's		Phy. Cul., Art	1917	1½	2			1,000
Essex	Durnin, Edward W.	B.A., Tor.	Phy. Cl. (Int.) Math. & Ph.		1919	4½	....	1,800		
	Wilson, Elizabeth A. R. V.			Art	1912	6½	5			1,000
	Guthrie, Ethel R. ....(Int.)	B.A., Queen's	Mods. & Hist., Phys. Cul.		1917	2½	....			1,000
	DeCou, Nellie	B.A., Tor.	Fr. and Ger.	Art, Phys. Cul.	1918	14	2			1,000
	Forbes, William B.		Phys. Cul. (Int.) Science.		1918	23	1		1,400	
Fergus	Perry, Peter	M.A., Tor.	Classics		1908	42	....	1,600		
	Rutherford, Wilhelmina D.		Art .....(Int.)		1917	6½	4			1,000
	Rodden, Mary K.	B.A., Tor.		Art	1917	2½	....			1,000
	Durnin, Vera B. .....(Int.)		Phys. Cul.		1917	1½	2			900
Flesherton	White, Harry S.			Phys. Cul.	1912	11½	2	1,500		
	Holmes, Margaret	B.A., Tor.			1914	4½	3			850
	Hulse, Clara .....)		Phys. Cul. .....(Int.)	Art	1917	7½	2½			900
Forest	Williams, Albert	B.A., Queen's		Phys. Cul.	1906	14	5	1,700		
	Arnold, Leita E.	B.A., Queen's	Phys. Cul. .....(Int.)		1918	2½	....			1,000
	Walker, Alexina A. C.		Art .....(Int.)	Phys. Cul.	1918	4	....			1,000

Fort Frances	Leckie, Bruce E.	B.A., McM.	Science	Phys. Cul.	1917	8½	2	1,900		
	Cooke, Violet E.	B.A., Queen's		Art, Phys. Cul	1918	½				1,250
	MacIntyre, Sada			Art	1919	6½	6			1,500
Gananoque	Bell, John J.	B.A., Tor.			1918	33	1	1,600		
	Edwards, Rebecca S.		Art (Int.)	Phys. Cul.	1908	9½	9			1,150
	Johnston, Agnes E.	B.A., Tor.	Mods. and Hist. (Int.)		1917	3½				1,150
	Lewis, Elwood Roy (Int.)	B.A., Queen's			1918	1	3		1,000	
Georgetown	Ross, Ralph	B.A., B.Paed., Tor.	Classics	Phys. Cul.	1914	31		1,900		
	McNab, Alberta	B.A., Tor.		Art, Phys. Cul.	1917	2½	1			1,050
	Howie, Mabel F.		Com.	Phys. Cul.	1917	7	3			1,000
	Eadie, William M.	B.A., Queen's	Phys. Cul. (Int.)		1918	4	20		1,400	
	Laird, Mario E.	B.A., Tor.			1918	3½	3			1 300
Glencoe	Hamilton, James A.	M.A., Tor.			1916	10½		1,350		
	Steele, Katherine R. (Int.)	B.A., Tor.	Eng. and Hist.	Phys. Cul.	1918	½				850
	Dykes, Vera K. (Int.)				1918	1	2			675
Gravenhurst	McNabb, Finlay	B.A., Queen's		Phys. Cul.	1916	6½	7	1,600		
	Broughton, Clara E.			Art, Phys. Cul.	1906	13½				800
	Stanbury, Frederica M. (Int.)	B.A., Tor.	Phys. Cul.		1919	½				850
Grimsby	McVicar, Archibald	B.A., Tor.	Eng. and Hist.		1918	18½	4½	1,700		
	Oaks, Anna M. (Int.)	B.A., Tor.	Mods. and Hist.	Phys. Cul.	1918	½				1,000
	Ferguson, Elizabeth D. (Int.)		Art		1918	½	5			850
Hagersville	Lishman, Frederick R.	B.A., Queen's		Phys. Cul., Art	1917	6½		1,600		
	Hind, Edith J.		Com. (Int.)		1915	10	3½			1,060
	Brain, A. Beatrice	B.A., Tor.	Art (Int.)	Phys. Cul.	1917	7½	1			850
Haileybury	Wilson, W. Asbury	B.A., Queen's			1910	19½		2,500		
	McGregor, Annie K.	B.A., Queen's	Phys. Cul. (Int.)		1916	8½				1,400
	Trace, Cephas M.	M.A., Queen's	Com., Art (Int.)	Phys. Cul.	1916	2½	1		1,400	
	Summerby, Frederika (Int.)	B.A., Queen's			1918	½	3½			1,000
Harriston	Hobbs, Thomas	B.A., Tor.	Math.	Phys. Cul.	1911	16½	5½	1,700		
	McKnight, Mary G.	B.A., Tor.		Art	1918	2½	3½			1,200
	Irwin, Florence H. (Int.)	B.A., Tor.	Mods. and Hist.	Phys. Cul.	1918	½				1,000
	Fenwick, Alice E. (Int.)	B.A., Tor.		Phys. Cul.	1918	1½				900
Hawkesbury	Harrison, Charles W.	M.A., Vic.		Phys. Cul.	1918	27		1,700		
	Powell, Alice (Int.)	B.A., Queen's		Phys. Cul.	1917	3½	2			900
	Bryan, Laura M. (Int.)			Art, Phys. Cul.	1918	1½	2			900

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								Principal	Male Assistants	Female Assistants
								$	$	$
Iroquois	Campbell, William A.	B.A., Queen's	Phys. Cul.	Art	1913	5½	....	1,500	.....	.....
	Mulloy, Luin E.				1911	11	3½	.....	.....	1,300
	Husband, Edith P.	B.A., Queen's		Phys. Cul.	1918	2½	4	.....	.....	900
	Thompson, Jennie D.			Phys. Cul.	1918	7½	1	.....	.....	900
Kemptville	Medcof, James L.	B.A., Queen's	Science	Phys. Cul.	1915	3½	1	1,550	.....	.....
	Johnston, Katie B.	B.A., Tor.	Eng. and Hist.	Phys. Cul.	1911	7½	4	.....	.....	1,200
	Johnston, Frances V.	B.A., Tor.		Phys. Cul.	1913	5½	2	.....	.....	1,150
	Percival, Mary L. (Int.)	B.A., Queen's	Art		1918	1½	....	.....	.....	850
	MacLeod, E. Blanche	B.A., Queen's		Art	1919	2½	....	.....	.....	1,000
Kenora	Cornwell, John L.	B.A., Tor.	Math.		1914	26½	....	2,200	.....	.....
	McMillan, Roy J.		Phys. Cul.	Art	1916	4½	....	.....	1,500	.....
	Wilkie, Marion F.	B.A., Tor.	Fr. and Ger.	Phys. Cul.	1917	8	....	.....	.....	1,500
	Lindsay, Bertie L.			Com.	1918	4½	4½	.....	.....	1,300
	Maclennan, C. Lillie	B.A., Queen's		Phys. Cul.	1918	8½	1	.....	.....	1,200
Kincardine	Nelson, Albert E.	B.A., Queen's			1916	10½	6	1,800	.....	.....
	Shorey, Percival M.	B.A., Queen's		Agr. & Hor.	1918	2½	....	.....	1,400	.....
	Cruikshank, Gertrude	B.A., Tor.		Phys. Cul.	1916	2½	....	.....	.....	1,100
	Hamilton, Agnes I.		Art	Phys. Cul.	1916	5½	....	.....	.....	1,100
	Tobin, Lilly S.	B.A., Queen's	Mods. and Hist. (Int.)	Phys. Cul.	1917	4½	3½	.....	.....	1,100
	Hanbidge, Frances J. (Int.)			Phys. Cul.	1917	1½	1	.....	.....	900
Leamington	Courtice, Samuel J.	B.A., Tor.	Phys. Cul., Math.		1917	15	6	1,900	.....	.....
	Campbell, George A.			Agr. & Hor.	1908	10½	12	.....	1,650	.....
	Rice, Elsie M.		Art (Int.)	Phys. Cul.	1917	4½	....	.....	.....	1,000
	McMaster, Maude H. (Int.)	B.A., Queen's	Eng. and Hist.	Phys. Cul.	1918	1½	7½	.....	.....	1,100
	Kerr, Maybelle G.	B.A., Tor.	Ph. Cl., Mods. & H. (Int.)		1919	3½	....	.....	.....	1,200
	Brunkard, Ethel			Art	1919	5½	4½	.....	.....	1,000

Listowel	Elliott, Henry E.	B.A., Queen's			1913	10½	3	1,700		
	Ellis, Roxie A.		Art		1915	6½	1			1,000
	Gee, Norma			Art, Phys. Cul	1915	5½				1,000
	Hay, Hazel F.	B.A., Tor.		Phys. Cul.	1918	2½				1,150
	Stevenson, Clara M. (Int.)	B.A., Tor.	Eng. and Hist.		1918	½				1,000
	Stanley, Fredrica		Phys. Cul. (Int.)		1918	2½	3½			1,000
Lucan	Menzies, Leslie P.	B.A., Tor.	Science	Phys. Cul.	1917	4	1½	1,550		
	Vrooman, Agnes S.	M.A., Western			1913	5½				950
	Murray, Olive H.			Art, Phys. Cul	1916	5½				850
	Foreman, Kathleen B. (Int.)	B.A., Queen's			1918	½	2			1,000
Madoc	Thackeray, Barton E.	B.A., Tor.			1918	11½	2½	2,000		
	Hanna, Ella A.			Phys. Cul.	1914	8½	4½			1,200
	Gillard, Leah A.		Art (Int.)		1915	5	1			1,000
	Fenn, Lloy Esther	B.A., Queen's		Phys. Cul.	1917	2½				900
Markdale	Preston, Thomas	B.A., B.Paed., Tor.	Science	Phys. Cul.	1915	23½	2	1,500		
	Mazinke, Henrietta E.			Art	1917	5	½			850
Markham	Bell, James S.	B.A., Tor.		Phys. Cul.	1912	9½	2	1,800		
	Campbell, Stella K.		Phys. Cul. (Int.)		1912	11½	1½			1,100
	Nicholson, Elvira E.	M.A., Tor.	Art (Int.), Mods. & Hist.	Phys. Cul.	1917	4				1,100
	Dixon, Fred. W. (Int.)			Art, Phys. Cul	1918	1			1,000	
Meaford	Dundas, Arthur A.	B.A., Tor.			1897	22	2	2,000		
	Hammond, John E.		Com.	Art	1906	12½	3		1,300	
	Williams, Edna J.	B.A., Tor.		Phys. Cul.	1912	11				1,600
	Stilwell, Ayrest L.	B.A., McM.	Phys. Cul. (Int.)		1916	3½	2		1,500	
	Austin, Margery I. (Int.)	B.A., Tor.	Eng. and Hist.	Phys. Cul.	1918	1½				1,100
Midland	Glass, William Arthur	B.A., Tor.		Phys. Cul.	1904	16½		2,000		
	Boyle, Edna M.	B.A., Tor.	Math. and Phys.	Phys. Cul.	1915	3½	1			1,200
	Webb, Roland D.			Phys. Cul.	1918	8½	1½		1,600	
	Kelly, Mary (Int.)	B.A., Tor.		Art, Phys. Cul	1918	1				1,100
Mitchell	Elliott, John	B.A., Queen's	Eng., Math.		1914	35	5	1,625		
	Carrie, Violet G. (Int.)	B.A., Tor.	Phys. Cul.		1918	½				1,000
	Ross, Margaret C.	B.A., Trin., Dublin		Art, Phys. Cul	1918	4				1,000
	Stuart, Agnes Muriel (Int.)	B.A., Tor.	Mods. and Hist.		1918	2				900
Morewood	Loucks, Horatio	B.A., Queen's			1902	16½	5½	1,900		
	Macphail, Mary C. (Int.)	B.A., Queen's	Phys. Cul.		1918	½				900

List of Principals and Assistants of Collegiate Institutes and High Schools, January, 1919—Continued

High Schools	Name of Teachers	Degrees	Specialists	Elementary and Intermediate Certificates (In the case of Agr. and Hor. the Certificate is Intermediate.)	Date of appointment	No. of years' experience in a High School or Coll. Inst.	No. of years in a Public School	Salaries		
								Principal	Male Assistants	Female Assistants
								$	$	$
Mount Forest	Speirs, Thomas E.	B.A., Tor.	Math. and Phys.		1907	12½	2	1,600	.....	.....
	Gardiner, Eatha H. (Int.)		Art		1917	1½	1	.....	.....	875
	Harding, Mary (Int.)	B.A., Tor.		Phys. Cul.	1918	1	½	.....	.....	800
	Cousins, Nellie I. (Int.)	B.A., West.			1918	1½	....	.....	.....	800
Newburgh	Andrews, Robert T.	B.A., Tor.	Classics		1910	14½	14	1,350	.....	.....
	Horan, J. Cecilia		Art (Int.)		1917	5½	2	.....	.....	900
	Wise, Elsie M.			Phys. Cul.	1918	10½	3	.....	.....	1,000
Newcastle	McMahon, Frank O.	B.A., Tor.		Phys. Cul.	1916	10½	6	1,300	.....	.....
	Ferguson, Evalena (Int.)	B.A., Queen's		Phys. Cul.	1918	½	....	.....	.....	800
Newmarket	Davidson, John H.	M.A., B.Paed. Tor.	Math.	Phys. Cul.	1917	16	5	1,850	.....	.....
	Hollingshead, John E.				1884	34	2½	.....	1,200	.....
	Kidd, William L.			Phys. Cul.	1910	14	10	.....	1,450	.....
	Wickett, Laura E.		Com.	Art	1909	9½	1½	.....	.....	1,150
	Taylor, Annie M. A.	B.A., Tor.	Phys. Cul.		1914	4½	....	.....	.....	1,050
	Tighe, Sara Elsie	B.A., Tor.	Eng. and Hist. (Int.)		1916	2½	....	.....	.....	1,000
	Haines, Ruth W.			Art, Phys. Cul	1917	6½	....	.....	.....	850
	Kirkwood, Elizabeth M. (Int.)			Art, Phys. Cul.	1919	1	17	.....	.....	900
Niagara	Bale, Geo. S.	B.A., Tor.	Mods and Hist		1914	18	....	1,500	.....	.....
	Clark, Etta			Art	1915	5½	....	.....	.....	850
Niagara Falls South	Myer, Albert N.	M.A., Trin.	Math.		1908	24	....	2,200	.....	.....
	Dawson, Margaret M.			Com.	1907	11	2	.....	.....	1,000
	Johnston, E. Grace			Phys. Cul.	1914	5½	2	.....	.....	1,050
	Porter, William A.			Agr.&Hor.,P.C.	1916	3½	2	.....	1,300	.....
	Mills, Jennie		Com., Art, Ph. Cul. (Int.)	Ag. & H., H. S.	1916	3	10	.....	.....	1,400

Norwood	Lawlor, Richard G.	B.A., Queen's		Phys. Cul.	1909	14½	8	1,800	
	Gillies, Ina M. (1nt.)	B.A., Tor.			1918	½	1½		900
	Sangster, Grace (1nt.)	B.A., Queen's			1919		2		900
Oakville	Wyndham, William B.	B.A., Tor.	Eng., Hist., Fr. & Ger.	Agr.&Hor.,P.C.	1914	22	6½	2,000	
	Ovens, Winifred E.	B.A., Western		Phys. Cul.	1912	10½			1,300
	Lutman, Margaret E.			Phys. Cul., Art	1917	6½	2		1,000
	Miller, Wilfred L. (1nt.)				1919		1	1,000	
Omemee	Millard, Lena *			Art, Phys. Cul	1916	4½	3	900	
	McDonagh, Charlotta (1nt.)				1919				900
Orangeville ..	Hackett, Edward	B.A., Dublin			1915	9½		1,850	
	Strang, Grace M.	B.A., Tor.	Mods. and Hist.		1907	12½			1,350
	Schmietendorf, Herbert F.			Phys. Cul.	1918	6½	4	1,350	
	Sinclair, Ella A. (1nt.)	B.A., Tor.	Classics	Phys. Cul.	1918	½			1,200
	Gabriel, Mary			Phys. Cul., Art	1919	2½	1		850
Oshawa	Dolan, John Henry	B.A., Queen's	Classics		1911	20½		2,000	
	Stevenson, Lewis	B.A., B.Sc., Vic.	Math., Science		1902	26	3	1,800	
	Bennett, Roy F.	B.A., McM.	Phys. Cul.		1917	5½		1,600	
	Armstrong, Florence J.			Phys. Cul.	1910	8½	5		900
	Moir, Isabella		Com.	Art	1918	11½	8		1,400
	Luke, Dorothy H. (1nt.)	B.A., Tor.	Phys. Cul., Mods. and Hist		1918	2½	1		1,000
	Mason, Edna W. H. (1nt.)	B.A., Tor.	Phys. Cul., Mods. and Hist		1918	½			1,000
Paris	Bell, Walter N.	B.A., B. Paed., Tor.	Classics	Phys. Cul.	1898	28		2,000	
	Willson, H. Blanche	B.A., Tor.	Math.	Phys. Cul.	1912	6½	1½		1,400
	Hall, F. Grace T.	B.A., Tor.	Mods. and Hist. (1nt.)	Art. Phys. Cul	1918	3	1		1,100
	Quinn, Mamie G. (1nt.)		Art, Com.	Phys. Cul.	1918	2	1½		1,100
Parkhill	Might, Lincoln	M.A., Queen's.	Art, Science	Phys. Cul.	1916	21	2	1,600	
	Garbutt, Mary M. (1nt.)	B.A., Tor.	Math. & Phys., Phys. Cul.		1917	2½	1		950
	Scott, Helen W. (1nt.)	B.A., Tor.	Eng. and Hist.		1918	½	2		850
	Weir, M. Frances (1nt.)	B.A., Western		Phys. Cul.	1918	1½			825
Parry Sound	Girdwood, Arthur R.	B.A., McM.	Math.	Phys. Cul.	1914	15		2,090	
	Hodgins, Ethelberta		Art	Phys. Cul.	1914	7	1		1,100
	Ingham, Harriet	B.A., Tor.	Eng.& H., Mods.&H. (1nt.)	Phys. Cul.	1917	3½			1,210
Pembroke ...	Flach, Ulysses J.	M.A., Tor.	Math.		1913	30		2,100	
	Dickey, M. Ada	B.A., Tor.	Mods. and Hist.		1914	16			1,700
	Rose, Marion H.		Fr. and Ger.		1911	23½	4		1,500
	De la Mater, Magdalene		Phys. Cul. (1nt.)		1917	9½			1,050
	Cameron, J. Herbert	M.A., Queen's	Classics (1nt.)		1918	3½	2½	1,700	
	Dickson, Marion C.		Com., Art (1nt.)	Phys. Cul.	1918	2½	3½		1,400
	Dunlop, Charles G.			Phys. Cul.	1918	8½	1	1,700	

*Temporary Certificate as Principal.

List of Principals and Assistants of Collegiate Institutes and High Schools, January, 1919—Continued

High Schools	Names of Teachers	Degrees	Specialists	Elementary and Intermediate Certificates (In the case of Agr. and Hor. the Certificate is Intermediate.)	Date of appointment	No. of years' experience in a High School or Coll. Inst.	No. of years in a Public School	Salaries		
								Principal	Male Assistants	Female Assistants
								$	$	$
Penetanguis'ne	Keefe, R. Daniel	B.A., Tor.			1907	16½	....	1,925	.....	.....
	Sweet, Fred. G.		Com. (Int.)		1911	9	4½	.....	1,425	.....
	Finch, I. Mae	B.A., Tor.	Art (Int.)	Phys. Cul.	1918	4½	....	.....	.....	1,000
Petrolia	MacKichan, Peter	B.A., Queen's		Phys. Cul.	1916	4½	3	1,700	.....	.....
	McPhail, Alexander C.	B.A., Queen's			1910	24½	9½	.....	1,300	.....
	Saunders, Lucy	B.A.,West.,M.A.,Mich	Art (Int.)		1916	4½	4½	.....	.....	1,100
	Jones, Rae L. L. (Int.)	M.A., Western	Phys. Cul.		1918	2½	1½	.....	.....	1,000
Plantagent	Jordan, Stella A.	B.A., Tor.		Phys. Cul.	1917	5½	2	1,200	.....	.....
	O'Connor, Katie B.			Phys. Cul., Art	1916	3½	2	.....	.....	900
	Crough, Beatrice E. (Int.)				1917	1½	1½	.....	.....	700
Port Dover	Ionson, Margaret A.	B.A., Queen's		Phys. Cul.	1918	3½	11	1,400	.....	.....
	Yarwood, Mary St. George	M.A., Tor.			1918	3½	½	.....	.....	800
Port Elgin	Potter, Charles	B.A., Tor.	Math.		1917	33½	5	1,500	.....	.....
	Duncan, Muriel	B.A., Tor.		Phys. Cul.	1915	3½	....	.....	.....	900
	McDonald, Vivian C.			Phys. Cul., Art	1915	3½	....	.....	.....	950
Port Hope	Snider, Egerton E. *	B.A., Vic.	Math.		1918	26½	2	2,000	.....	.....
	Copeland, George E.	M.A., Queen's	Science	Agr. & Hor.	1911	7½	3½	.....	1,500	.....
	Scott, Ethel O.	M.A., Tor.	Mods.&Hist., (Int.), Fr.&G	Phys. Cul.	1911	7½	4½	.....	.....	1,500
	Tuer, Margaret		Art, Com.	Phys. Cul.	1910	12	5	.....	.....	1,100
	Bull, Mary Jean (Int.)	B.A., Tor.	Eng. and Hist.	Phys. Cul.	1917	1½	....	.....	.....	1,000
	Breslove, David ** (Int.)	M.A., Tor.	Classics	Phys. Cul.	1919	1½	....	.....	1,450	.....
Port Perry	Follick, Thomas H.	M.A., Vic.	Science	Voc. Music	1915	28½	2	1,700	.....	.....
	Stone, George				1883	37	4	.....	1,375	.....
	Harris, L. Morwenna		Art (Int.)	Phys. Cul.	1912	8½	1½	.....	.....	1,000

	Lynch, Mary E.			Phys. Cul.	1918	11½	2½			1,000
	Glasgow, Marion I. (1nt.)			Phys. Cul.	1918	2½				900
Port Rowan	Kerr, Mrs. Winnabel E.	B.A., McM.	Art		1916	6½	5	1,200		
	Hutchinson, Gladys M. (Int.)		Phys. Cul.		1917	1½	2			750
Prescott	Evans, George E.	M.A., Tor.	Classics	Phys. Cul.	1918	5½		1,650		
	Goulding, Hanna M.		Phys. Cul. (Int.)	Art	1911	15½	2½			1,300
	Greig, Earl H.	B.A., Queen's		Phys. Cul.	1916	2½			1,300	
	Singleton, C. Blanche	B.A., Queen's	Phys. Cul. (Int.)		1917	2½	1½			975
Richmond Hill	Haynes, Andrew C.	B.A., Tor.			1919	7½	3	1,700		
	Park, Leonora (Int.)	B.A., Tor.			1918	1½	2			1,000
	Clark, Alice B. (Int.)				1918	½	2			1,100
Ridgetown	Cameron, James G.	B.A., Queen's		Art, Phys. Cul.	1919	17½	14½	1,700		
	Dewar, Nora G.	B.A., Queen's	Classics	Art	1915	3½				1,100
	Galloway, J. Louise	B.A., Tor.	Phys. Cul. (Int.) Mods.&H		1917	3½				950
	Adams, Florence J.	B.A., Tor.	Math. and Phys.		1918	5½				1,200
	Almas, Anna F. (Int.)	B.A., Tor.		Phys. Cul.	1918	2½				950
Rockland	Coughlan, Teresa A.	B.A., Tor.			1916	2½		1,100		
	Mulvihill, Mayme B.			Art, Phys. Cul	1917	3½	2			800
	Smith, Marion E. (Int.)	B.A., Tor.	Phys. Cul.		1918	½				1,000
Sault Ste.Marie	Rudlen, George W.	B.A., Tor.	Math.		1904	20		2,400		
	Walkom, Daniel T.	B.A., Queen's			1911	9	3½		2,000	
	McKinnon, Charles	B.A., Tor., M.A., Chi	Phys. Cul. (Int.), Classics		1917	14	3½		1,900	
	Clayton, Vivian E.	B.A., Man.	Art, Com.		1908	12½	1½			1,600
	Patterson, Harriet A.	B.A., Queen's			1914	12				1,600
	MacKenzie, Anna				1910	8½	11			1,250
	Hammond, Kate E. (Int.)	B.A., McM.			1917	1½	3			1,200
	Crummer, Eva M.			Phys. Cul.	1918	9	1½			1,200
	Later, Thomas J.		Man. Train. (Int.)		1910	8	10		1,800	
	Teacher to be appointed.									
Shelburne	Campbell, Alexander	B.A., Tor.	Math.		1918	27	3	1,600		
	Eckhardt, Jessie E.	B.A., McGill		Phys. Cul.	1918	6½	2			1,000
	Broad, Luella L.	B.A., Tor.		Phys. Cul., Art	1918	4½	1			850
Simcoe	Christie, James D.	B.A., Tor.	Eng., Fr. and Ger.		1889	40		1,700		
	Martin, Thomas W.		Phys. Cul. (Int.)		1917	5½			1,450	
	Brown, Annie E.			Phys. Cul.	1916	2½	1			925
	Smith, Hilda H. C.	B.A., Tor.	Art	Phys. Cul.	1918	4½				1,100
	Manning, Ernest D. ***			Phys. Cul.	1918	3½			1,600	

*On Military Service from Nov., 1915, to Sept., 1917. **On Military Service from March, 1918, to Dec., 1918.
***On Military Service from May, 1916, to Sept., 1918.

List of Principals and Assistants of Collegiate Institutes and High Schools, January, 1919—Continued

High Schools	Names of Teachers	Degrees	Specialists	Elementary and Intermediate Certificates (In the case of Agr. and Hor. the Certificate is Intermediate.)	Date of appointment	No. of years' experience in a High School or Coll. Inst.	No. of years in a Public School	Salaries		
								Principal	Male Assistants	Female Assistants
								$	$	$
Smithville ..	Jenkins, Robert S.	M.A., Tor.	Class., Eng. & H., Fr. & G.		1919	13	....	1,800	.....	.....
	Clarke, Olive M. (Int.)	B.A., Queen's		Phys. Cul.	1918	3/12	....	.....	.....	850
	Stillwell, Muriel T. (Int.)	B.A., McM.	Mods. and Hist.	Phys. Cul.	1918	3/12	....	.....	.....	800
Stirling	Kennedy, George E.	B.A., Vic.	Science	Phys. Cul.	1893	26	4	1,500	.....	.....
	Weatherill, Lillian (Int.)			Art	1918	1	4 1/12	.....	.....	800
	Powell, Mabel (Int.)	B.A., Queen's	Mods. and Hist.	Phys. Cul.	1918	1 1/12	1/12	.....	.....	850
Streetsville ..	Laing, Maybelle M.	B.A., Queen's		Art	1916	5 1/12	3	1,200	.....	.....
	Gerhardt, Harry W.			Phys. Cul.	1913	5 6/12	.....	.....	1,100	.....
	Pigott, Margaret (Int.)			Phys. Cul.	1918	6/12	7 1/12	.....	.....	800
Sudbury	Berlanguet, Hugh S.	B.A., Queen's	Classics		1910	15	....	2,200	.....	.....
	Dobson, George C. (Int.)	B.A., Tor.		Phys. Cul.	1918	3/12	5	.....	1,800	.....
	File, Lillian A.		Com.	Phys. Cul.	1913	8 1/12	6 1/12	.....	.....	1,600
	Rose, Kathleen M. (Int.)	B.A., Queen's	Math.		1917	1 1/12	....	.....	.....	1,500
	McRae, Donella M.	B.A., Queen's	Ph. Cl., (Int.), Mods. & H.		1918	14 1/12	2	.....	.....	1,500
	Park, Camilla H.	B.A., Tor.		Phys. Cul., Art	1918	3 2/12	1 1/12	.....	.....	1,100
Sydenham....	Sine, Frederick	M.A., B.Sc., Queen's.		Agr. & Hor.	1915	11 1/12	5	2,000	.....	.....
	Preston, G. Alexander (Int.)	B.A., Tor.	Math. and Phys.	Phys. Cul.	1918	3/12	.....	.....	1,400	.....
	Hiscock, May B.	B.A., Queen's	Phys. Cul. (Int.)		1910	8 3/12	....	.....	.....	1,000
	Melvin, L. Hazel (Int.)	B.A., Queen's			1918	1 2/12	....	.....	.....	900
Thorold.....	Bonis, Harry	B.A., Tor.	Classics	Art, Phys. Cul.	1914	28	1	1,700	.....	.....
	Schooley, Fred.			Phys. Cul.	1918	13 3/12	7	.....	1,300	.....
	Nelson, Eva E.	B.A., Queen's			1919	2	1/12	.....	.....	1,100

Tillsonburg...	Auld, Charles	B.A., Tor.	Math.		1914	24	....	2,000	.....	.....
	Hindson, Hilda M.		Phys. Cul. (Int.), Com.	Art	1904	14	6	.....	.....	1,100
	Sinclair, Robt. J.		Phys. Cul.		1915	7½	2	.....	1,500	.....
	Allen, Lillian M.	B.A., Tor.		Phys. Cul., Art	1918	4½	....	.....	.....	1,050
	McVean, Kathleen P.	B.A., Tor.		Phys. Cul., Art.	1919	2	....	.....	.....	1,000
Toronto, Commerce..	Eldon, Robert H.	B.A., Queen's	Math., Com.		1911	27	7	3,400	.....	.....
	Ward, William	B.A., B.Paed., Queen's	Com.		1911	24	5	.....	2,600	.....
	Fletcher, William H.	M.A., Queen's	Science, Com.		1911	28½	4½	.....	2,600	.....
	Baird, William		Com.		1911	16	4	.....	2,600	.....
	Edward, Wesley G.	B.A., Tor.	Com.		1911	13½	1	.....	2,400	.....
	Bailey, Joseph J.		Com. (Int.)		1911	14½	5	.....	2,400	.....
	Webster, Samuel C.	B.A., Tor.			1911	17	2	.....	2,400	.....
	Conlin, Evelyn E.	B.A., Tor.	Mods. and Hist.		1911	16½	....	.....	.....	2,400
	VanEvery, John F.	B.A., Tor.	Eng., Hist., Fr. and Ger.		1912	21	....	.....	2,300	.....
	Harry, Frank T.		Com.		1913	5½	13½	.....	2,200	.....
	Smith, Clayton R.		Art, Com.		1914	10	5	.....	2,100	.....
	Mathieson, Elsie	B.A., Tor.	Eng. and Hist.		1914	8	6	.....	.....	2,000
	Francis, Annie B.	B.A., Tor.	Mods. and Hist.		1915	15½	1	.....	.....	2,000
	Keast, Walter	B.A., Tor.	Math.		1916	12½	5	.....	2,600	.....
	Stockdale, Thomas N.		Phys. Cul., Com. (Int.)	Art	1916	10	4	.....	1,900	.....
	Hare, Arthur F.		Com. (Int.)		1916	5½	8½	.....	2,000	.....
	Lailey, Marion B.	M.A., Tor.	Phys. Cul.		1916	7	....	.....	.....	1,800
	Harvey, Humphrey G. (Int.)		Com.		1916	2½	8½	.....	1,900	.....
	Ramsay, James A.	B.A., Queen's	Art (Int.), Com.		1917	9½	11	.....	1,800	.....
	Batchelor, Edna G. ...(Int.)	B.A., McM.			1917	1½	....	.....	.....	1,700
	Henry, Stanley Hunter	M.A., Queen's	Sci. (Int.), Math. & Phys.		1918	8½	....	.....	1,700	.....
	Atkin, Edith L.	B.A., Tor.	Mods. and Hist.	Phys. Cul.	1918	3½	....	.....	.....	1,700
	Cavell, Ernest E. ....(Int.)		Com.		1918	½	8½	.....	1,700	.....
	Dickson, Lucy I. ....(Int.)		Phys. Cul., Com.		1918	½	5½	.....	.....	1,600
	Bain, Mary	B.A., Tor.	Phy. Cl. (Int.), Mds. & H.		1918	6	....	.....	.....	1,500
Toronto, North	Reed, George H.	M.A., B.Paed., Tor.	Classics		1910	30	4	3,000	.....	.....
	Shaw, Robert	B.A., McM.	Math.		1913	17	3	.....	2,600	.....
	Clark, Luther J.	B.A., Queen's	Phy. Cl. (Int.), Fr. & Ger.		1914	28½	5½	.....	2,600	.....
	Keillor, James	B.A., Queen's	Eng. and Hist.		1915	27	3	.....	2,600	.....
	Nelson, Curtis I.				1910	8	2½	.....	2,100	.....
	Scanlon, Mary G.		Phys. Cul. (Int.), Art		1911	10	2½	.....	.....	2,000
	Lang, Jean K. ....(Int.)	B.A., Tor.	Mods. & Hist., Phys. Cul.		1918	1	....	.....	.....	1,500
Trenton	Whyte, Robert	B.A., Tor.		Phys. Cul.	1910	23	4	1,900	.....	.....
	Scott, Jessie M.			Phys. Cul.	1914	7½	3	.....	.....	1,150
	Thompson, Margaret J.	B.A., Queen's	Fr. & Ger., Eng. & Hist.			19	6	.....	.....	1,200
	McCauley, Ina H. ....(Int.)	B.A., Tor.	Mods. and Hist.	Phys. Cul.	1918	½	....	.....	.....	1,000
	Clapp, Ella B .....(Int.)	B.A., Queen's		Phys. Cul.	1919	....	½	.....	.....	1,000

NOTE.—W. Stanley Ferguson, a teacher of the High School of Commerce, is on Active Service.

List of Principals and Assistants of Collegiate Institutes and High Schools, January, 1919—Continued

High Schools	Names of Teachers	Degrees	Specialists	Elementary and Intermediate Certificates (In the case of Agr. and Hor. the Certificate is Intermediate.)	Date of appointment	No of years' experience in a High School or Coll. Inst.	No. of years in a Public School	Salaries		
								Principal	Male Assistants	Female Assistants
								$	$	$
Tweed	Irwin, Alfred H.	B.A., Queen's	Phys. Cul. (Int.)		1916	7	1½	1,600		
	Newton, Amy A.	B.A., Tor.	Mods. & His., Ph. Cl. (Int.)		1917	2⅔	5½			900
	Nichol, Christene B.		Phys. Cul. (Int.), Art		1919	3				900
Uxbridge	Welsh, David A.	B.A., Tor.		Agr.&Hor., P.C.	1917	8½	2½	1,800		
	Austin, Grace C.		Phys. Cul. (Int.)		1917	9½	1			1,150
	Strang, Rose I.			Phys. Cul.	1917	21				1,100
	Stewart, Ruth (Int.)	B.A., Queen's	Mods and Hist.	Phys. Cul.	1917	2½	2			950
	Gould, Elva		Art (Int.)		1916	9				1,000
Vienna	Foster, Jessie	B.A., Queen's	Fr. and Ger.	Phys. Cul.	1914	17		1,150		
	Switzer, Neva (Int.)		Art		1918	2½				750
Walkerton	Morgan, Joseph	M.A., Tor.	Classics		1881	37		1,600		
	McGregor, Margaret C.	B.A., Tor.		Art	1908	11½	1½			1,200
	Robb, George W. (Int.)	B.A., McM.			1918	1½	1½		1,300	
	Traver, Edith A.			Phys. Cul.	1918	6½	2			1,200
Wallaceburg	Dickenson, Edgar U.	B.A., Tor.	Phys. Cul. (Int.)		1904	14	3	1,870		
	Young, Ralph H.	B.A., Queen's		Phys. Cul.	1917	6	3		1,320	
	Stevenson, Marjorie T.			Art	1918	4⅓				1,000
	Shaw, Ada E. (Int.)	B.A., Tor.		Phys. Cul.	1918	½				900
Wardsville	Farrington, Mabel C.	B.A., Tor.		Phys. Cul.	1916	5⅓		1,400		
	Archer, Nerissa N. (Int.)		Art		1918	1⅓	1			800
Waterdown	Cooper, Alex. B.	B.A., Queen's		Vocal Music	1918	16½	8	1,700		
	McTurk, Isabel	B.A., Queen's			1918	2½				900
	Mitchell, Isabella C.			Phys. Cul.	1918	5				800
	Fothergill, Ethel L.			Art, Phys. Cul.	1918	2½	1			850

25 E.

Waterford	Rowntree, Annie E.	M.A., Tor.	Phys. Cul. (Int.) Mods.&H.		1910	8½	5	1,500		
	Russell, James W.		Art (Int.)	Phys. Cul.	1916	4½			1,100	
	Franklin, Marion M. (Int.)	B.A., Tor.		Phys. Cul.	1918	½				800
Watford	Steer, Albert B.	B.A., Tor.			1915	10	1	1,650		
	McCaw, Hester E. A.	B.A., Tor.	Eng. and Hist.		1912	10½				1,150
	Mitchell, Blanche H.			Art	1907	11½	4			1,100
	McKenzie, Russell N. (Int.)	B.A., Tor.	Math. and Phys.	Phys. Cul.	1916	3½			1,350	
Welland	McCuaig, Herbert M.	B.A., Queen's			1891	34		1,800		
	Brackenbury, George L.	B.A., Queen's		Phys. Cul.	1917	6½	1		1,700	
	Thomson, Helen M.	B.A., Tor.	Math.		1908	10	3			1,300
	Brennan, Jennie L.		Art		1906	12½	4			1,200
	Ross, Margery E.	B.A., Tor.	Phys. Cul., Mods. & Hist.		1915	4½				1,000
	Fennell, Mary A. (Int.)	B.A., Tor.			1918	½				1,100
	MacLaurin, Mary L. (Int.)	B.A., McM.	Eng. and Hist.	Phys. Cul.	1919		3			900
Weston	Pearson, Alexander	B.A., Tor.	Science	A&H.,P.C.,Com.	1914	25½		2,500		
	Graeb, Mabel M.	M.A., Tor.	Mods. and Hist.	Phys. Cul.	1911	10½				1,400
	Dufton, Lena I.	B.A., Tor.	Classics	Phys. Cul.	1915	10				1,450
	Delmage, Emelyn E.	B.A., McM.	Math., Art	Phys. Cul.	1919	11½				1,600
Whitby	Johnson, George S.	B.A., McM.	Science	Agr. & Hor.	1915	8½		1,900		
	Smith, Wallace W.	B.A., McM.			1916	2½	4½		1,400	
	Salisbury, Orethia M.		Art		1914	5	4½			1,200
	Gregory, Alice E. (Int.)	B.A., McM.	Classics, Phys. Cul.		1917	1½				1,200
	Philp, J. Henry	B.A., Queen's	Phys. Cul. (Int.)		1918	3½			1,200	
Wiarton	Hamilton, John R.	B.A., Queen's		Phys. Cul.	1912	9½		1,700		
	O'Shaughnessy, Kath. (Int.)	B.A., Queen's	Phys. Cul.		1917	2½				950
	Madigan, Ellen I. (Int.)	B.A., Tor.		Art	1918	1½				900
Williamstown	Cooke, John A.	M.A., Queen's	Classics		1911	20	3	1,800		
	Cattanach, Jessie S.	B.A., Queen's		Phys. Cul.	1910	8½	4½			1,175
	Rogers, William C.	M.A., Queen's	Art (Int.)		1918	8	2½		1,400	
	Morrow, Consuelo O. B. (Int.)	B.A., Queen's		Phys. Cul.	1918	½				1,000
Winchester	Barlow, Fred. J.	B.A., Tor.	Art	Ag. & Hor., P.C.	1917	4½	2	1,700		
	Fraser, Christine	B.A., McM.		Phys. Cul.	1917	4½	5			1,000
	Grenville, Lucy H. (Int.)	B.A., Tor.		Phys. Cul.	1918	2				1,000
	Rose, Maude L.			Art	1918	5	3½			800
Wingham	Houser, Wilfred H.	M.A., Queen's	Math.		1918	9		1,900		
	Anderson, John A.	B.A., Queen's	Science (Int.)	Agr. & Hor.	1915	3½	4		1,550	
	Butcher, Frank H.	B.A., Tor.	Classics	Phys. Cul.	1916	2½			1,400	
	Whyte, Marion I.	B.A., Tor.	Mods. and Hist.	Phys. Cul.	1913	9	1			1,300
	Anderson, Beatrice E.		Com., Art (Int.)		1917	8½	3			1,100
	Gillies, A. Marjorie (Int.)	B.A., Tor.	Phys. Cul.		1918	½				1,000

SUMMARY, COLLEGIATE INSTITUTES AND HIGH SCHOOLS, JANUARY, 1919

Number of Schools, Sex of Teachers, and Percentages

Schools

Collegiate Institutes	47
High Schools	117
Total	164
Increase for the year	2

Teachers

Men	530
Women	558
Total	1,088

Percentages

Jan. '19:	Men,	48.71;	Women,	51.28
" '18:	"	50.80;	"	49.19
" '17:	"	53.37;	"	46.62
" '14:	"	59.27;	"	40.72
" '09:	"	67.55;	"	32.45
" '04:	"	78.80;	"	21.20

Number of Teachers

Collegiate Institutes

Principals	47
Assistants	542
Total	589

High Schools

Principals	117
Assistants	382
Total	499

Grand Total

Principals	164
Assistants	924
Grand Total	1,088
Increase for the year.	37

Salaries

Collegiate Institutes

Highest Salary	$3,700
Average " Principals	2,454
" " Male Assistants	1,955
" " Female "	1,410
Average Salary	$1,760
Increase for the year	104

High Schools

Highest Salary	$3,400
Average " Principals	1,753
" " Male Assistants	1,643
" " Female "	1,077
Average Salary	$1,335
Increase for the year	54

Collegiate Institutes and High Schools

Highest Salary	$3,700
Average " all Principals	1,954
" " all Assistants	1,496
Average Salary, all	$1,565
Increase for the year	81
Average Salary, Male Assis'nts.	$1,882
" " Female "	1,231
Increase for year, Principals	$70
" " Male Assistants	142
" " Female "	64

University Graduates, Specialists, etc.

Collegiate Institutes and High Schools

Graduates	792
Non-Graduates	296
Graduates, Jan., 1919	72.79 per cent.
" " 1918	72.59 "
Non-Graduates, Jan., 1919	27.20 "
" " " 1918	27.40 "
Interim Certificates	176
Specialists	543
Interim Specialists	249
Specialists and Int. Specialists Jan. '19.	72.79 per cent.
" " " '18	70.69 "
Non-Specialists, Jan., 1919	27.20 "
" " " 1918	29.30 "
Elementary Certificates in Art	85
" " Physical Culture	290
" Commercial Certificates	3
" Certificate in Household Science	1
" " Manual Training	1
Intermediate Certificates in Agricul. and Hort.	28

APPENDIX X

ONTARIO SCHOOL FOR THE DEAF

ANNUAL REPORT OF THE SUPERINTENDENT

To the Honourable H. J. Cody, M.A., D.D., LL.D., M.P.P.,
Minister of Education for Ontario:

Sir,—I have the honour to submit for your consideration the annual report of the Ontario School for the Deaf for the year ending October 31st, 1918, and in presenting this report I am pleased to be able to state that notwithstanding the continued strain of the war and the financial burdens borne by the Province no vital interest of the pupils was permitted to suffer, and that the educational work of the school was maintained at its hitherto high standard of efficiency.

The Attendance

The average attendance of pupils for the year was 256. This was well up to the average attendance of preceding years and showed a slight increase over that of the previous year. At the close of school for the summer vacation ten pupils graduated, and twenty, most of whom had completed the full number of sessions in school, were written off. At the reopening in September thirty-six new pupils were enrolled and two who were absent for some years returned to school. Sixteen who were detained at home through various causes, some to assist in work, others through illness, have since returned to school, and the prospect is that the attendance for the coming year will equal that of former years. When it is considered that many of the senior pupils were at work during the vacation at very remunerative wages, their prompt return to school at the reopening shows an appreciation on the part of both the pupils and parents of the benefits to be obtained, which is very gratifying.

The Health of the Pupils

Throughout the year and up to the time of the outbreak of influenza in October the general health of the school was exceptionally good. Previous to the epidemic,

and in anticipation of it, the pupils were kept in the open air as much as possible in order that they should be in the best possible physical condition to withstand the expected attack. The harvesting of the apple crop by the pupils under the supervision and with the assistance of teachers and officers furnished a pleasant and effectual means to that end and should be credited with some share in the favourable results obtained. The epidemic, which was of a fairly severe type, caused great anxiety and was combated by all the resources at our disposal. At the height of the epidemic school was closed for a time and the pupils distributed throughout the buildings so that there were as few as possible in any one room. This arrangement, together with a close supervision over ventilation, no doubt diminished to a great extent the toxic condition of the atmosphere of the rooms and lessened the severity of the attack. Every member of the staff was a volunteer for whatever duty required, and no praise is too great for the splendid care they gave those ill with the disease, and that we had only one fatality to record is no doubt due in a great measure to the splendid service of the staff generally. Miss Linn, in charge of the boys' residence, and Miss Deannard, in charge of the girls' residence, were untiring workers and well deserve the appreciation of the school and the gratitude of both pupils and parents. Dr. Boyce, our physician, was unsparing in his attention and has every reason to feel satisfied with the splendid results obtained.

The Expenditure

The rule of the school since the outbreak of the war has been economy without impairment of service. Notwithstanding the very great vigilance of the staff in this respect there was a considerable increase in the total expenditure for the year over that of preceding years. But when it is considered that the purchasing power of a dollar is not more than that of sixty cents a few years ago, it will be readily seen that the per capita cost per pupil of $392.91 is not up to what might reasonably be expected under the unusual price conditions prevailing during 1918.

Comparison of Weekly Cost per Pupil for the Years 1916, 1917 and 1918, as per the Bursar's Statements

	1916	1917	1918
Medical Department	$0.01	$0.03	$0.02
Butcher's meat	.34	.34	.48
Flour	.12	.18	.25
Butter and milk	.34	.37	.40
General groceries	.23	.27	.24
Fruit and vegetables	.11	.11	.14
Bedding and clothing	.04	.05	.05
Fuel, light and power	.99	1.86	2.18
Laundry	.07	.07	.09
Books and apparatus	.08	.09	.09
Printing, postage, etc.	.03	.06	.06
Furniture	.02	.03	.04
Farm	.06	.16	.16
Repairs	.05	.06	.07
Sewage works	.01	.01	.02
Water	.07	.07	.07
Miscellaneous	.08	.09	.06
Salaries and wages	2.72	3.05	3.13
	$5.37	$6.90	$7.55

The only items in the foregoing statement which call for any comment are those of coal and salaries and wages. The increase in the cost of fuel was due to the prevailing high price of coal and the purchasing and storing of a sufficient quantity to carry over till September, 1919. In the item of salaries and wages the increase is perhaps less than the normal increase for similar services throughout the Province.

The Buildings

For several years a sum of money was placed in the estimates for the reorganization of the Main Building and the industrial department, but owing to exigencies of war and the necessity of reserving work for the reconstruction period this work was not gone on with and the money not expended. Now that the war is drawing to a close preparation should be made to proceed with the building programme as originally planned as soon as conditions are favourable. The class-rooms, which are located in the main building, are in almost every particular not up to the requirements of a modern school. Many of the rooms are too small and poorly lighted, and in none is there any system of ventilation, and when it is considered that poorly lighted rooms not only interfere with lip-reading and impede the work of the teachers, particularly in the Oral Department, but also put a strain on the eyes of pupils who are already handicapped with deafness, and many with defective vision as well, the reorganization becomes both necessary and urgent. Changes of a similar nature are required in the shops, and while not so immediately pressing as are those of the main building, they should be gone on with as soon as those in the main building are completed, and the shops furnished with up-to-date equipment for the teaching of the various trades.

The Farm

The operation of the farm for the year was satisfactory and profitable. The orchard, in common with the orchards of this district, suffered severely from "winter killing," due to the severity of last winter, but the crop was a fairly good one and perhaps above the average for the year. Besides having an abundance of apples for our own use, over six hundred barrels were sold, five hundred of them going to supply other Provincial institutions. The boys of the school assisted greatly in the work and made it possible to carry on the farm without any of the difficulties due to the scarcity of farm help, and while their work was in this respect of great advantage, it was of decidedly greater value in their own development. The chores and work done by these boys was the very best kind of manual training. Not only were their hands and eyes trained and their powers of observation, self-reliance and resource developed and their mentality quickened by the many varieties of work and conditions incidental to farm operations, but they were conscious of helping to produce things of real value. In addition to this training they were receiving in the open-air work of the farm a physical development not otherwise obtainable and building up a robustness of constitution so necessary to vigorous physical or mental effort.

Value of Farm Products Used in Maintenance or Sold during the Year, estimated at market prices

Milk, 40,881 quarts at 10c.	$4,088 10
Cream, 231 lbs. fat at 45c.	103 95
Calves, 12	34 00
Apples, 850 barrels	2,500 00
Hogs, 36, 8,280 lbs.	1,378 25
Cow, 1, 1,200 lbs.	108 75
Eggs, 881 doz. at 40c.	352 40
Chickens, 525 lbs. at 25c.	131 25
Strawberries, 40 boxes at 20c.	8 00
Raspberries, 300 boxes at 20c.	60 00
Rhubarb, 200 bunches at 5c.	10 00
Radish, 10 quarts at 10c.	1 00
Peas, 40 quarts at 25c.	10 00
Brussels, 10 pecks at 50c.	5 00
Onions, 21 bushels at $1.50	31 50
Pumpkins, 30 at 5c.	1 50
Cauliflower, 31 at 10c.	3 10
Cabbage, 915 at 5c.	45 75
Red cabbage, 75 at 5c.	3 75
Beets, 30 bushels at 50c.	15 00
Carrots, 20 bushels at 50c.	10 00
Green beans, 25 baskets at 40c.	10 00
Field beans, 10 bushels at $7.50	75 00
Cucumbers, 125 baskets at 25c.	31 25
Potatoes, 100 bags at $1.75	175 00
Tomatoes, 400 baskets at 40c.	160 00
Turnips, 70 bushels at 20c.	14 00
Celery, 2,000 bunches at 5c.	100 00
	$9,466 55

The Work of the Session

The regular school work was carried on during the session of 1917-18 in twenty-two classes, six manual and sixteen oral, with a staff of twenty-three teachers. No serious interruptions occurred during the year through illness among pupils or teachers, and as a consequence good results were obtained in almost all the classes.

The dividing of the school into three departments, junior oral, senior oral, and manual, and the placing of each department in charge of a supervising teacher, have been of material benefit and have made progress more even throughout the school.

Miss Ford, supervisor of the Junior Oral Department, gives her whole time to the work of supervision and the training of new teachers in the special methods used in teaching the deaf. She is absent at present, taking a special course to further qualify herself for the training of teachers, and it is confidently expected that the difficulties experienced in the past in staffing our school will be overcome and that it will not be necessary in the future to go outside the Province to recruit our teaching staff. Normal trained teachers who have had several years of markedly successful public school experience, after receiving a course of training in our special methods, almost invariably make the most successful teachers of the deaf.

When the great difficulties of educating the deaf are considered, it will be readily conceded that any effort that may be made to secure teachers of outstanding ability and proved aptitude will not be too great, if the deaf children of our Province are to receive the education to which they are justly entitled.

Appended hereto are the reports of Mr. H. J. Clarke, B.A., Literary Examiner, and Dr. Boyce, our School Physician.

Mr. Clarke's report deals with the work of various classes in a very comprehensive manner. His familiarity with the technical work of our school, and the

special requirements of our pupils, makes his inspection of the class-room work, and his report thereon, of special value, and demonstrates the advantages of having an experienced examiner.

Before closing my report I wish to acknowledge my great indebtedness to you, Sir, and to Dr. Colquhoun, and to the officers of your department, for the courtesy shown and assistance given me on all occasions.

I have the honour to be,

Sir,

Your obedient servant,

C. B. Coughlin,
Superintendent.

Belleville, October 31st, 1918.

LITERARY EXAMINER'S REPORT

To the Honourable H. J. Cody, M.A., D.D., LL.D., M.P.P.,
Minister of Education for Ontario:

Sir,—I have the honour to present to you my report as Literary Examiner at the Ontario School for the Deaf, Belleville.

This school now comprises in the literary department, twenty-two classes—sixteen oral classes and six manual classes. In passing I would like to note that, when I first visited this school ten years ago, the proportion of oral and manual classes was reversed, with even a greater preponderance of manual classes. In fact the oral work that was taken at that time was almost in the nature of special classes in articulation for a few of the brighter children. To-day it is almost an Oral School.

I spent six days in the school, visiting every class, where I observed the work and in several cases examined the classes, as I would do in an ordinary public school.

After a careful inspection of the work of this school, I can assure you that efficient instruction is being given to these children by teachers who in the main are experts in their line of work. The Manual Department is under the supervision of Miss Linn. The Junior Oral Department is under the charge of Miss Ford, and the Senior Orals are under Mr. Campbell. These supervisors are doing excellent work in their several departments.

When it is remembered that these pupils come to school almost invariably without a word, and with no means of communication with their fellows except for a few natural signs, it is wonderful what is accomplished.

In the Manual Department, Miss Bull has a class in the Preparatory Grade. Several of these pupils are of low mentality, but by careful and painstaking effort Miss Bull has made considerable progress with them. It is unfortunate that there is not some place where this class of children could be taken care of. We meet the same class in some of our public schools. They get very little at a school designed for the normal child, but under special treatment might be made self-supporting.

Miss James has the First Grade pupils in this department, and I saw very good work in her class, particularly the action work and the use of the five slates. There are four other grades in the Manual Department in charge of Mrs. Balis, Miss Brown, Miss Linn and Mr. Coleman. All are doing their best for those committed to their care.

In the Oral Department, Preparatory Grade, there are three classes. The aim in this grade is to acquire a vocabulary with which to express their thoughts. At the risk of being wearisome, I will outline as briefly as I can just what has been accomplished in the Junior Oral Department, and this will show you that these pupils are getting a course of training that will be of immense value to them when they go out into the world to mix as they must with speaking people.

Miss Domm has a class of very young children, who require a great deal of sense-training exercises. These little tots lip-read twenty commands, and the names of thirty-five (35) objects. They do not speak yet. Miss Springer's class are slightly older. They speak about fifty words. They of course lip-read these words and write them. They also lip-read thirty-five commands, and use short sentences such as "A boy fell," etc. Miss Handley's class speak one hundred and twenty-five words. They also lip-read them and write them. In addition they lip-read fifty commands, and use short sentences such as "I saw a cow," etc. They also know the numbers to ten.

In the First Grade Orals there is only one class, in charge of Miss Wheeler. These speak about four hundred words, use short sentences containing adjectives and prepositional phrases. They have the use of "to be" and "to have", and question forms are understood. They take the numbers to twenty.

There are three classes in the Second Grade Orals. Miss Cross has a junior class who speak about one hundred words. Words are classified in this grade, and short stories are begun. They take the numbers to one hundred. They also have such question forms as Who? What? Where? When? How many? What colour? etc. The two Second Grade Seniors are in charge of Miss Curry and Miss Fearon. These pupils use questions themselves. They read short stories, and answer questions on what they have read. They also write short compositions, and have numbers to one hundred.

The Third Grade Orals are in charge of Miss Rierdon, Miss Armstrong, and Miss Hill. These children read various stories containing the language forms so far taught. They write compositions describing pictures, etc. In arithmetic they do addition and subtraction, and have begun geography.

There are two classes in the Fourth Grade, in charge of Miss Panter and Miss Hitchcox. In the language work of this grade the chief aim is in the acquisition of new forms and their use in composition. In geography, they begin the map of the world, and take the plants from which we derive food, clothing, etc. History stories of the early settlers are taken. Multiplication is taken in arithmetic. Books are beginning to be a source of information.

This lays a very good foundation for the Senior Oral Department, where, after passing in succession under the tuition of Miss Palen and Miss Deannard, the pupils reach the Senior class, where they are prepared for High School Entrance by Mr. Stewart and Mr. Campbell, who divide the curriculum between them. This allows these two men to divide their time also with the class who have passed beyond the Entrance work and are taking up some of the First Form work.

I was very much interested in some special students, at present receiving instruction at the school. Some of our noble men, who answered the call of King

and Country, and went to France to defend the rights of the weaker nations against the tyranny of Germany, have been invalided home, with their hearing gone. I had the pleasure of meeting Gunner Gallagher, who unfortunately has entirely lost his hearing in the war. He came to the school in April, and in early June he had made such progress in lip-reading that I had not the slightest difficulty in carrying on a conversation with him. His teacher, Miss Deannard, gave him some rather severe tests, but in every case he measured up readily. He is a man of exceptional ability, but considering all this he has made remarkable progress.

In concluding this report, which is somewhat lengthy, I wish to express my sincere thanks to the Superintendent and staff for their uniform kindness to me during the discharge of my official duties. Every opportunity was afforded me to examine into the workings of the school as I deemed advisable, and any information required was readily and cheerfully given, and everything was done to make my visit a pleasure as well as a duty.

I have the honour to be,

Sir,

Your obedient servant,

H. J. Clarke,
Public School Inspector.

Belleville, June 25th, 1918.

PHYSICIAN'S REPORT

To the Honourable H. J. Cody, M.A., D.D., LL.D., M.P.P.,
Minister of Education for Ontario.

Sir,—I beg leave to report to you the conditions prevailing in the Medical Department of the Ontario School for the Deaf for the year ending October 31st, 1918.

Our first duty on the opening of school is to make a careful examination of all new pupils, with the view of detecting any departure from normal general health or any physical or mental defect, and to correct it as far as possible.

The whole school then undergoes inspection. Every child is weighed and measured and a record kept for future use during the session at any time when required. This general inspection is made monthly throughout the session. This course is followed every year, special attention being given to avoid the introduction of infectious or contagious diseases by the examination of the children, their trunks and clothing, and as far as possible to ascertain the conditions prevailing in the homes before leaving for school. Wherever any suspicious circumstances warrant the child is quarantined and kept under observation.

Every year we have enter the school a number of children showing evidence of a condition of health due to constitutional or hereditary causes. For these the school is a great boon, inasmuch as they are under treatment and observation while here, and usually leave the school in much better health than when they entered.

If we exclude the epidemics, which we sometimes have, the general health of the children varies little one year with another, and probably is not different from ordinary residential schools.

During the early part of the term it is of quite common occurrence to have a good many with anæmia, debility, marasmus, digestive disorders, middle ear diseases, skin diseases, and during the changeable season, catarrhal troubles, bronchitis or influenza. Under treatment these usually make early and satisfactory improvement. We have some, however, that are beyond the influence of treatment and such as to warrant no hope of recovery. We endeavour to benefit these as much as possible and keep them at school.

On the aggregate I am pleased to state that the general health of the school was very well preserved during the past year, considering the large number of children in residence here for a period of nine months of the year. There have been times of comparative quiet when only trivial cases of sickness or indisposition prevailed, at other times our energies, time and attention were taxed to the utmost.

Of the more serious and important cases of sickness I would mention the following. In the early part of the term of 1917 and 1918 before Christmas we had one case of whooping cough, promptly quarantined, three cases of appendicitis, two cases of typhoid fever, one of chorea, and two of heart disease who returned home before the end of the session.

During the latter part of the session, after January 1st, one case of comminuted fracture of the thigh in a boy, two cases of pneumonia, a large number of cases of la grippe—a number of them complicated with bronchial pneumonia, two cases of inflammatory rheumatism, one case of appendicitis operated on at the Belleville General Hospital, one case of pulmonary tuberculosis which was returned home. Besides the above I would mention the following: fifteen cases of goitre, minor injuries, wounds and contusions such as often occur among a large number of children at recreation.

Among the staff and attendants there has been some sickness. Our matron, Miss Willoughby, was severely sick for some time, but has recovered and returned to duty. Mr. Charles Peppin, Engineer, was for a long time dangerously ill, but has fully recovered.

I refer especially to the epidemic of influenza. The first cases appeared in Belleville about the middle of September, and instructions were at once issued by the Superintendent of the school that every precaution should be taken to prevent the school from being invaded. The most rigid quarantine possible was enforced, and no one allowed to enter or leave the school grounds unless of necessity. The children were kept as much as possible within the grounds and in the open air, thus avoiding any overcrowding that might otherwise exist in the schoolrooms or dormitories. Officers and officials were warned to avoid crowded places or where suspicious cases of sickness existed. We were deprived of the benefits of serum treatment excepting in a few cases, as it was possible to procure it only in very small amounts, and most of the children were down with the disease before they could receive the inoculation. Later on it was used wherever circumstances warranted.

The means adopted seemed to be successful, as we had no cases until about the 7th of October, when it appeared first among the boys. There was no relaxing our efforts at quarantining, but the infection spread very rapidly, and nearly the whole school became involved. At one time we had over two hundred children in bed with the disease. Twelve developed pneumonia. The staff and attendants were not spared, a number being severely sick, including one of the special nurses.

When the epidemic first appeared we had a few cases of mild chicken pox in quarantine; some of these afterwards became sick with influenza.

During this exceptionally critical time our energies were taxed to the utmost, and much credit is due the officers and members of the staff and nurses for their assistance: especially the Superintendent for his invaluable aid and instruction in the general management of the school and his liberality in allowing everything necessary to the successful handling of the epidemic.

We believe that the results fully justified the efforts, for we had but one death, a little boy aged fourteen.

We are now fully engaged in restoring the school to a better condition of health, as many will require time and special attention before being fully reinstated.

I have the honour to be,

Sir,

Your obedient servant,

W. W. Boyce, M.D.

Belleville, November 1st, 1918.

Officers of the School

C. B. Coughlin, M.D. ..... Superintendent.
J. W. Pearse ..... Bursar.
W. W. Boyce, M.D. ..... Physician.
Miss E. A. Willoughby ..... Matron.
Miss G. Graham ..... Domestic Science Teacher and Assistant Matron.

Teachers

Manual.	Oral.
Miss G. Linn, Supervising Teacher, Manual Department.	W. J. Campbell, Supervising Teacher, Senior Oral Department.
D. R. Coleman, M.A.	Miss C. Ford, Supervising Teacher, Junior Oral Department.
Mrs. Sylvia C. Balis.	Geo. F. Stewart.
Miss Ada James.	Miss L. Deannard.
Miss Mary Bull.	Miss I. B. Palen.
Miss Nina Brown.	Miss B. Rierdon.
	Miss F. Cross.
	Miss L. Fearon.
	Miss E. Panter, B.A.
	Miss I. Aherne.
	Miss F. Curry.
	Miss M. Hitchcox.
	Miss L. Carroll.
	Miss V. Handley.
	Miss G. Springer.
	Miss E. Nurse.
	Miss K. B. Scott.

Domestic Science ..... Miss G. Graham.
Fancy Work ..... Miss M. Bull.

Miss C. Coombe ..... Trained Nurse.
Mrs. L. G. Williams ..... Teacher of Sewing.
Wm. Nurse ..... Storekeeper and Assistant Supervisor of Boys.
E. T. Payne ..... Printer and Instructor in Printing.
A. Morrice ..... Shoemaker and Instructor in Shoemaking.
W. E. Parks ..... Carpenter and Instructor in Carpentering.
J. N. Boyd ..... Baker and Instructor in Baking.
C. J. Peppin ..... Engineer.
C. S. Nicholson ..... Farmer.

List of Pupils in the Ontario School for the Deaf for the Year ending October 31st, 1918

County, etc.	P.O. Address
Algoma District:	
Donovan, Ellen	Steelton.
Winnie, Irene	Steelton.
Webb, Kathleen	Dayton.
Alberta, Province of:	
Nouak, Nick	Didsbury.
Porter, Annie	Dewbury.
Talbot, Hartley	Calgary.
Brant:	
Glazier, Eva	Brantford.
Moors, Beatrice	St. George.
Moors, Grace	St. George.
McKenzie, Robert	Harley.
Reid, James	Brantford.
Sole, Erna	Tarringdon Hill.
Tate, Mary	Harley.
Bruce:	
Baker, John	Southampton.
Ballagh, Edith	Teeswater.
Crowe, Robert	Dobbinton.
Keyes, May	Hepworth.
McKee, Carl	Pinkerton.
McKee, Maud	Pinkerton.
Rourke, Melville	Tara.
Carleton:	
Blanchard, Victor	Cumming's Bridge.
Cardwell, Meleta	Ottawa.
Carriere, Joseph	Ottawa.
Dallaire, Romeo	Ottawa.
Delinelle, Lauretta	Ottawa.
Eldridge, Florence	Ottawa.
Garvin, Jean	Ottawa.
Hanna, Abraham	Ottawa.
Jones, Mabel	Billings' Bridge.
Little, Sadie	Ottawa.
Pittaway, Audrey	Ottawa.
Pommerville, Eva	Ottawa.
Quinn, Carman	Ottawa.
Radmore, Frank	Ottawa.
Savard, Paul	Cumming's Bridge.
Towns, Dora	Laurentian View.
Dundas:	
Beckett, Sam	Chesterville.
Ford, Clarice	Mountain.
Dufferin:	
Bell, George	Riverview.
Boyle, Lizzie	Waldemar.
Boyle, John	Waldemar.
Middleton, Helen	Shelburne.
Smith, Gordon	Riverview.
Essex:	
Andrews, Kenneth	Windsor.
Fairful, Maisie	Leamington.
Standish, Dorothy	Essex.
Suddy, Fred.	Windsor.
Elgin:	
Caves, Jessie	St. Thomas.
Gwalter, Fred.	St. Thomas.
Hammond, Catherine	St. Thomas.
Henderson, Gordon	St. Thomas.
Summers, Moses	Southwold.
Wonnacott, Nellie	Aylmer.
Frontenac:	
Charlton, Archie	Kingston.
Gilmour, Maud	Kingston.
Wood, Alonzo	Cataraqui.
Glengarry:	
Cass, Jemima	Maxville.
Grey:	
Brown, Alma	Markdale.
Henderson, Harvey	Owen Sound.
Kinsman, Mary	Proton.
Wilson, Elsie	Markdale.
Haldimand:	
Buckley, Lawrence	Selkirk.
Foster, Sylvia	Dunnville.
Foster, Dorothy	Dunnville.
Foster, Irene	Dunnville.
Krick, William	Dunnville.
Maw, Harris	Caledonia.
Sherk, Clara	South Cayuga.
Halton:	
Kenny, Francis	Acton.
Patterson, Walter	Milton.
Patterson, Lewis	Milton.
Hastings:	
Ingram, Nellie	Faraday.
Narrie, John.	Marmora.
Roberts, John H.	Belleville.
Shaw, Vera	Trenton.
Swayne, Robert	Belleville.
Smith, Marie	Belleville.
Ward, Albert	Stirling.
Waldron, Arthur	Trenton.
Whalen, Mary A.	Point Ann.
Huron:	
Bell, Elwood	Goderich.
Cole, Jean	Clinton.
Cole, Melvin	Clinton.
Doubledee, Lena	Wroxeter.
Laporte, Dennis	Zurich.
Marshall, John	Hensall.
Marshall, Russell	Hensall.
Kent:	
Adkin, James	Bothwell.
Antaya, Roy	Paincourt.
Brewer, Blanche	Bothwell.
Christian, Gertrude	Wallaceburg.
Dubois, Madeline	Wallaceburg.

List of Pupils in the Ontario School for the Deaf.—Continued

County, etc.	P.O. Address
Kent—Continued:	
Goodison, Ada	Coatsworth.
Healey, Dorothy	Wheatley.
Julien, Joseph	Wheatley.
Meredith, Stella	Thamesville.
Toulouse, John	Chatham.
Roberts, John E.	Thamesville.
Richie, Agnes	Chatham.
Richie, Napoleon	Chatham.
Lambton:	
Batty, Blanche	Sarnia.
Chenny, Roy	Petrolia.
Johnston, Olive	Sarnia.
Jackson, Leone	Oil Springs.
Jackson, Myrel	Oil Springs.
Leckie, Alice	Sarnia.
Leeder, Flora	Wyoming.
Thomas, Clara	Walpole Island.
Volk, Mildred	Grand Bend.
Watson, Vern	Watford.
Lanark:	
Leggett, Gordon	Perth.
McLaren, Mary	Smith's Falls.
McLaren, Rachel	Smith's Falls.
Rathwell, Charles	Perth.
Wenzel, Doris	Lanark.
Lincoln:	
McMillan, Duncan	St. Catharines.
Thornton, Lloyd	Vineland Station.
Watson, Bert	St. Catharines.
Leeds:	
Bishop, Ethel	Gananoque.
Jacklin, Myrtle	Lombardy.
Middlesex:	
Eager, Mary	London.
Humphrey, Hazel	London.
Hodgins, Albert	London.
Hodgins, Sadie	London.
McMurray, Mirton	Belton.
Steele, Annie	London.
Muskoka District:	
Johnson, Ella	Utterson.
Northumberland:	
Shannon, Lena	Brighton.
Norfolk:	
Davis, Florence	Simcoe.
Oxford:	
Abrey, Irene	Drumbo.
Groves, Russell	Ingersoll.
Miller, Willie	Tavistock.
Wagester, Walter	Tavistock.
Youngs, Stanley	Embro.
Ontario:	
Benns, Charles	Claremont.
Lappin, Leo	Atherley.
Lott, Reata	Oshawa.
Luke, Elsie	Brooklin.
Maynard, John	Uxbridge.
Wilton, Lesley	Claremont.
Prince Edward:	
Harris, Mary	Picton.
Perth:	
Eickemeyer, Norman	Monkton.
Kaufman, Margaret	Palmerston.
McIntyre, Ross	Munro.
Parry Sound District:	
Bagby, Florence	Burk's Falls.
Blais, Gladys	Burk's Falls.
Windsor, George	Callander.
Young, Edna	Trout Creek.
Peel:	
Davey, John	Nortonville.
Elliott, Madeline	Bolton.
McVean, Archie	Malton.
McLeish, Marjorie	Caledon.
Peterboro:	
Davis, Jay	Havelock.
Meyett, Joseph	Peterboro.
Meyett, Charles	Peterboro.
McBrien, Elwood	Peterboro.
McMillan, Ena	Havelock.
Yerrow, Bruce	Peterboro
Quebec, Province of:	
Joyce, Andrew	Quyon.
Pye, Rodger	Windsor.
Renfrew:	
Coules, Michael	Renfrew.
Dick, Alton	Renfrew.
Hunter, George	Matawachan.
Hunter, Raymond	Matawachan.
Hunter, Clifford	Matawachan.
Schneider, Milton	Pembroke.
Teepel, Emma	Khartum.
Whyte, Bella	Arnprior.
Rainy River District:	
Olson, Alma	Black Hawk.
Simpson, Zona	Rainy River.
Simpson, Noreen	Rainy River.
Simcoe:	
Bowen, Roy	Cookstown.
Bowen, Esther	Cookstown.
Bowen, Margaret	Cookstown.
Godfrey, Mabel	Orillia.
Roach, Lawrence	Creemore.
Rivet, Douglas	Midland.
St. Amant, Herman	Penetanguishene.
Sloan, Harry	Churchill.

List of Pupils in the Ontario School for the Deaf.—Continued

County, etc.	P.O. Address
Simcoe—Continued:	
Tudhope, Catherine	Orillia.
Wheat, Dorothy	Midland.
Wright, Elsie	Midland.
Stormont:	
Campbell, Mary	Avonmore.
Ingle, Agnes	Cornwall.
Spotton, Kathleen	Berwick.
Sudbury District:	
Bealer, Frank	Copper Cliff.
Legrandeur, Victor	St. Charles.
Martel, Joseph	Sudbury.
Toppazzini, Albert	Copper Cliff.
Thunder Bay District:	
Bechard, Lorne	Port Arthur.
Kliskinen, Onni	Port Arthur.
Munro, Ada	Slate River Vly.
Smith, Walter	Fort William.
Thompson, Jean	Fort William.
Timiskaming District:	
Audet, Alcide	Cobalt.
Barnes, Ada	Cobalt.
Brent, Margaret	Charlton.
McConnell, Mildred	Charlton.
Whalen, Lorette	New Liskeard.
Whalen, Mary	New Liskeard.
Victoria:	
Brandon, William	Kinmount.
McNish, Helen	Kirkfield.
Patrick, Nellie	Lindsay.
Wellington:	
Barbour, Clifford	Hillsburgh.
Chambers, Pearl	Rockwood.
Carter, Elizabeth	Guelph.
Johnson, Viola	Drayton.
Marshall, Jessie	Arthur.
McQueen, Mary	Guelph.
Wentworth:	
Allen, Muriel	Hamilton.
Bluestein, Shina	Hamilton.
Batstone, Jesse	Hamilton.
Bayliss, Hector	Hamilton.
Cooper, Martha	Dundas.
Cronkhite, Vera	Hamilton.
Gorman, Walter	Hamilton.
Hacking, Willie	Hamilton.
Holt, Nathan	Hamilton.
Moreland, Jack	Hamilton.
Murtell, Cecil	Hamilton.
Peel, Douglas	Hamilton.
Struble, Norman	Hamilton.
Tait, Harold	Hamilton.
Tait, William	Hamilton.
VanSickle, Lara	Jerseyville.
Webb, Gordon	Hamilton.
Welland:	
Caswell, Sylvia	Niagara Falls.
Farr, James	Marshville.

County, etc.	P.O. Address
Waterloo:	
Crosson, Jack	Galt.
Durrant, Evelyn	Breslau.
Golds, Charles	Kitchener.
Gartung, Gertrude	Kitchener.
Hirons, George	Waterloo.
Klinkman, Mary	New Hamburg.
Kube, Laura	Kitchener.
Maule, Rona	Galt.
Voisin, John	St. Clemens.
York:	
Angus, Jack	Toronto.
Allen, Winnie	Toronto.
Baillie, Dorothy	Toronto.
Brooks, James	Toronto.
Buchan, Lucy	Toronto.
Buchan, Caroline	Toronto.
Bennett, Charles	Toronto.
Brown, Leonard	Toronto.
Buckle, Oscar	Aurora.
Casey, Lillian	Toronto.
Dickson, Violet	Toronto.
Davey, Charles	Toronto.
Davey, Norman	Toronto.
Ducker, Freida	Mount Dennis.
Egginton, Maud	Toronto.
Egginton, Gwendoline	Toronto.
Goulding, Thomas	Toronto.
Goldman, Joe	Toronto.
Garrison, Archie	Toronto.
Hardy, Gladys	Toronto.
Kelsey, Lillian	Toronto.
Lee, Charles	Toronto.
Laforte, Augustine	Toronto.
Laughlin, Nellie	Toronto.
Malinsky, Rosie	Toronto.
Malinsky, Louis	Toronto.
McCann, Grace	Toronto.
McFarlane, John	Toronto.
McGovern, William	Toronto.
McCallum, Duncan	Strange.
Osborne, Iona	Sutton West.
Powell, Marion	Toronto.
Petch, Lera	Milliken.
Pattillo, Lenore	Toronto.
Pierce, Frank	Toronto.
Pack, Sydney	Toronto.
Proctor, Leslie	Toronto.
Pitifield, Margaret	Toronto.
Reading, Victor	Toronto.
Robinson, Charles	Toronto.
Roberts, Florence	Toronto.
Richardson, Gordon	Toronto.
Smith, Norma	Toronto.
Sellera, Nancy	Toronto.
Storks, Doreen	Toronto.
Shidlowsky, Abie	Toronto.
Thomson, Anabel	Toronto.
Tate, James	Toronto.
Willmott, Charles	Toronto.
Wraight, Lucy	Toronto.
Wicks, John	Toronto.

Number of Pupils in Attendance each Official Year since the Opening of the School

	Male	Female	Total
From October 27th, 1870, to September 30th, 1871	64	36	100
" " 1st, 1871, " 1872	97	52	149
" " 1872, " 1873	130	63	193
" " 1873, " 1874	145	76	221
" " 1874, " 1875	155	83	238
" " 1875, " 1876	160	96	256
" " 1876, " 1877	167	104	271
" " 1877, " 1878	166	111	277
" " 1878, " 1879	164	105	269
" " 1879, " 1880	162	119	281
" " 1880, " 1881	164	132	296
" " 1881, " 1882	165	138	303
" " 1882, " 1883	158	135	293
" " 1883, " 1884	156	130	286
" " 1884, " 1885	168	116	284
" " 1885, " 1886	161	112	273
" " 1886, " 1887	151	113	264
" " 1887, " 1888	156	109	265
" " 1888, " 1889	153	121	274
" " 1889, " 1890	159	132	291
" " 1890, " 1891	166	130	296
" " 1891, " 1892	158	127	285
" " 1892, " 1893	162	136	298
" " 1893, " 1894	158	137	295
" " 1894, " 1895	160	135	295
" " 1895, " 1896	173	137	310
" " 1896, " 1897	164	128	292
" " 1897, " 1898	167	138	305
" " 1898, " 1899	161	132	293
" " 1899, " 1900	153	130	283
" " 1900, " 1901	157	143	300
" " 1901, " 1902	147	141	288
" " 1902, " 1903	140	143	283
" " 1903, " 1904	137	134	271
" " 1904, " 1905	130	138	268
" " 1905, " 1906	116	143	259
" " 1906, " 1907	126	145	271
" " 1907, " 1908	133	143	276
" " 1908, to October 31st, 1909	130	151	281
" November 1st, 1909, " 1910	143	149	292
" " 1910, " 1911	138	143	281
" " 1911, " 1912	135	126	261
" " 1912, " 1913	139	129	268
" " 1913, " 1914	152	144	296
" " 1914, " 1915	156	160	316
" " 1915, " 1916	158	152	310
" " 1916, " 1917	145	148	293
" " 1917, " 1918	143	147	290

Cost per Pupil, School for the Deaf, Years ending October 31st, 1917 and 1918

Heading of Expenditure	1916-17			1917-18		
	Total expenditure year ending October 31st, 1917	Yearly cost per pupil October 31st, 1917	Weekly cost per pupil October 31st, 1917	Total expenditure year ending October 31st, 1918	Yearly cost per pupil October 31st, 1918	Weekly cost per pupil October 31st, 1918
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
Medical department	328 02	1 32	0 03	238 41	93	02
Butchers' meat, etc	4,344 02	17 52	0 34	6,375 66	24 90	48
Flour, bread, etc	2,309 22	9 31	0 18	3,301 87	12 90	25
Butter and milk	4,777 10	19 26	0 37	5,366 61	20 96	46
General groceries	3,517 82	14 19	0 27	3,236 72	12 64	24
Fruits and vegetables	1,409 49	5 68	0 11	1,928 09	7 53	14
Bedding and clothing	690 31	2 78	0 05	644 85	2 52	05
Fuel	22,945 74	92 52	1 78	28,991 10	113 25	2 18
Light	1,073 20	4 33	0 08	.....	.....	.....
Laundry, etc	846 87	3 42	0 07	1,188 48	4 64	09
Books and apparatus	1,200 03	4 84	0 09	1,187 29	4 64	09
Printing, etc	755 12	3 05	0 06	766 57	2 99	06
Furniture, etc	386 15	1 56	0 03	595 57	2 33	04
Farm	2,096 21	8 45	0 16	2,100 00	8 20	16
Repairs, ordinary	789 40	3 18	0 06	968 38	3 78	07
Water	900 00	3 63	0 07	900 00	3 52	07
Sewage	70 30	0 28	0 01	209 29	82	02
Miscellaneous	1,128 42	4 55	0 09	867 62	3 40	06
Salaries and Wages	39,443 60	159 05	3 05	41,717 38	162 96	3 13

Average number of pupils, 1916-17, 248.
Annual cost per pupil, 1916-17, $358.92.
Weekly cost per pupil, 1916-17. $6.90.

Average number of pupils, 1917-18, 256.
Annual cost per pupil, $392.91.
Weekly cost per pupil, $7.55.

APPENDIX Y

ONTARIO SCHOOL FOR THE BLIND

ANNUAL REPORT OF THE SUPERINTENDENT

To the Honourable H. J. Cody, M.A., D.D., LL.D.,
Minister of Education for Ontario.

Sir,—I have the honour to transmit herewith the Forty-seventh Annual Report of the Ontario School for the Blind, Brantford, for the year ended 31st October, 1918.

I have the honour to be,
Sir,
Your obedient servant,

W. B. Race,
Superintendent.

The Attendance

In presenting the Forty-seventh Annual Report of the Ontario School for the Blind, I beg to report the average attendance for the session which ended in June, 1918, as 102, and a decrease in the total registration for the school session commencing September 27th, 1918, from 106 to 98. The registration of pupils for the twelve months of the official year from October 31st, 1917, to October 31st, 1918, was 126, just one less than in the preceding official year.

An aroused public opinion, due to systematic efforts upon the part of physicians and nurses, has contributed in some measure to a decrease in blindness arising from ophthalmia neonatorum, or what is popularly known as "babies' sore eyes," and it is confidently expected that there will be a further diminution in this respect now that the recently established National Institute for the Blind in Toronto has taken in hand a further campaign of education in this direction.

It was found after an examination by our oculist, Dr. Bell, that two of our pupils had perfect sight in one eye and were therefore eligible for an education in the public schools. Their parents were communicated with to this effect and the pupils were returned to their homes to complete their education without the restraint imposed upon them by the limitations obtaining in a school for the blind. It would be unfair to train pupils with such good sight in our school, owing to the

difficulty of their acquiring the necessary sense of touch, as the temptation to use the eye is too great to be resisted. In fact pupils with very imperfect vision are frequently being corrected for the too prevalent habit of impairing this precious remnant of sight by using their eyes to help out when difficulties arise which the sense of touch does not easily and immediately solve.

Four other pupils were returned to their homes, two because they were mentally unfit, one owing to ill-health, and one because he was neither able nor willing to derive any benefit from further attendance.

New Members of Literary Staff

Owing to the resignation of Miss Kavanagh and Miss Radcliffe, both of whom were members of the Literary staff for several years, it was necessary to engage new teachers to take their places. The vacancies were filled by the appointment of Miss Emma Moffitt, of Orillia, and Miss Florence McGuire, of Owen Sound, both very highly recommended by the Inspectors in their own districts. I have pleasure in bearing testimony to their efficiency and resourcefulness in applying themselves to the new problem of teaching the blind.

In the Kindergarten class a new teacher has been secured to act as an assistant to Miss Middlemiss. The pupils in this class, owing to the variation in their ability and age, require more individual attention than they have been getting in past years, and this attention will be given by the appointment to that *most important department* in the school of Miss Annie Patterson, of Brantford.

Introduction of High School Work

In my report last year I stated that classes were being organized on the same basis as in the public schools, and that the public school course would be adhered to as far as was consistent with the limitations of our students. In pursuance of this plan the pupils were graded into classes, and each class was placed in charge of one teacher. It was suggested also that there was no valid reason why the senior students should not be given an opportunity to try the Entrance examination and if successful proceed to the more advanced studies of the High School course. You will be gratified to know that seven students succeeded in securing the necessary standing, and Entrance certificates were issued to them in accordance with the Regulations of the Department of Education.

For these students a High School class was opened in our school and the work is proceeding very satisfactorily. It was necessary to engage for this class an additional teacher in the person of Miss Margaret Summerby, of Massey. Miss Summerby is an under-graduate of Queen's University, and a graduate of the Faculty of Education, Kingston, and has entered upon her work with the requisite enthusiasm and interest which make for success.

New Supervisor

Mr. Pollock, the Boys' Supervisor, resigned in June to accept a position temporarily as instructor in swimming at the Y.M.C.A. in Winnipeg, and afterwards permanently at Galt. His place has been filled by Mr. Paul Greenwood, who takes the same interest in the boys' games as his predecessor and has special charge of their swimming class once a week in the Y.M.C.A. of this city.

Death of Mr. Wilson

It is with the utmost regret that I have to record the sudden death of our very efficient engineer, Mr. James Wilson, who for seventeen years was in the service of the school. Mr. Wilson was apparently in his usual health and spirits and had spent the evening previous to his attack at the game of bowling, his sole recreation, and one of which he was very fond. The following extract is taken from the Brantford *Expositor*:—

"Mr. Wilson had been chief engineer at the School for the Blind for seventeen years and during that time had seen many changes and great development in the size of the institution. He was a most efficient, trustworthy and faithful official and spared himself no pains to fulfil as well as possible the responsibilities of his position, which latterly increased very greatly with the growing extent of the buildings. He was also an enthusiastic member of the Dufferin Bowling Club, taking the keenest interest in all the affairs of the club and in all bowling events in the city, in which he was very well known. But the chief interest of the deceased was in his church, for which he counted any sacrifice of time and energy a pleasure if by so doing he could advance its interests. He had been for many years a member of the board of management and for a number of years he had been a member of the session, where his services were of that steady, unselfish, faithful nature, which characterized all his life work. Whatever he did he did it with his whole heart and in every circle in which he moved he will be sorely missed. The Sons of Scotland had charge of the funeral at the grave."

Mr. Wilson was succeeded by Mr. Harry Bond, under the title of Mechanical Superintendent.

New Pupils at the Opening of the Session, September 25th, 1918

Name.	Residence.
French, Clayton	Anglia, Sask.
Giroux, Albert	North Bay.
Helliwell, June	Toronto.
Johnson, Gertrude	Winnipeg, Man. (re-admitted.)
Joyce, Patricia	Strathcona Alta.
Kelly, Livingstone	Fenelon Falls.
McLaren, Fred.	Merrickville.
MacDonald, Christena	Dunvegan.
McIvor, Donald	Goderich.
Martin, Joseph	Winnipeg, Man.
Miller, Donald	Dunnville.
O'Neill, Mary	Ottawa (re-admitted).
Patrick, George	London.
Petrie, Aloysius	Hamilton.
Troughton, Robert	Fergus.
Vance, D. Earl	Galt.
Wagner, Rose	Toronto (re-admitted).

Pupils Admitted During October, 1918

Name.	Residence.
Niece, Robert	Lowbanks.
Kaufman, Blanche	Chatham (re-admitted).

Pupils Registered, Session 1917-18

Name.	Residence.
Anthony, Gordon	Brampton.
Bell, Stewart	Paisley.
Bellew, Clarence	Winter, Sask.
Bettridge, Edward	Brampton.
Burgess, Lloyd	Princeton.
Campbell, Charles	Toronto.
Carlson, Arthur	Victoria Harbor.
Carscallen, Archie	Tamworth.
Chapman, Oswald	Rosseau.
Clarke, James	Toronto.
Clissold, Fred.	Mimico.
Conway, Ernest	Hough Lake.
Culver, John	Todmorden.
Dobbin, Bert.	Toronto.
Duncan, Terence	Toronto.
Fenton, Mills	Allenford.
Fonger, Stanley	Bruce, Alta.
Garlick, Walter	Ottawa.

Pupils Registered, Session 1917-18.—Con.

Name.	Residence.
Gash, James	Fernie, B.C.
Gomm, William	Toronto.
Grausdin, John	Lettonia, Man.
Green, J. Fred.	Chesley.
Green, Harold	Winnipeg, Man.
Green, George E.	Toronto.
Hackett, John	Toronto.
Hambourg, Myer	Toronto.
Hartfield, Adolf	Lang, Sask.
Hill, Archie	North Bay.
Hill, Norman	St. Thomas.
Hutchinson, Fernie	Fernie, B.C.
Joyce, Judson	Ottawa.
Keller, Nicolay	Hyas, Sask.
Kennedy, Edward	Ottawa.
Konopski, Albin.	Valley River, Man.
Kozlowski, Jos.	Winnipeg, Man.
Lott, Ernest	Brussels.
Löwe, Walter	Hamilton.
McDonald, James	Clover Bar, Alta.
McLennan, John	Toronto.
Macalister, Donald	Macalister, B.C.
Macbeth, Stanley	Toronto.
Marcotte, Cleophose	Mattawa.
Metcalfe, William	Toronto.
Mills, Fred. J.	Moosomin, Alta.
Miscampbell, Lester	Angus.
Murray, Ancile	Goderich.
Ormston, Ralph	St. Catharines.
Oster, Clarence	St. Catharines.
Parfitt, Allan	Toronto.
Philpott, John A.	Brockville.
Powell, James	Toronto.
Rigg, William	Mount Dennis.
Robb, John	Toronto.
Robinson, Charles	Barrie.
Salter, Melville	Oshawa.
Steele, Fred.	Perth.
Stoddart, Ernest	Copper Cliff.
Sydor, Mike	Winnipeg, Man.
Towner, John	Toronto.
Tomlinson, Roy	Saskatoon, Sask.
Vance, Frank	Saskatoon, Sask.
Vincent, Cecil	Crookston.
Webb, Harold	Allandale.
Wilkinson, Charles	Kingston.
Young, Kenneth	Binbrook.
Bews, Anna	Bridgeburg.
Bezaire, Alma	Auld.
Bezaire, Lea	Auld.
Bickerton, Gladys	Navan.
Brennan, Alice	Bothwell.
Broad, Olive	Sunderland.
Brown, Gladys	Brantford.
Brunsden, Alma	Brantford.
Catling, Nellie	Goderich.
Clark, Jessie	North Bay.
Clarke, Lillian	Mount Dennis.
Clarke, Marguerite	Toronto.
Crawley, Daisy	Toronto.
Dalton, Mary	Hamilton.
Davison, Winifred	Meaford.
Dawson, Christena	Toronto.
Dickson, Julia	Toronto.
Fitzpatrick, Alta	Wheatley.
Gascoigne, Marjorie	Hamilton.
Gill, Grace	Toronto.
Grills, Iva	Cane.
Hardwick, Lillian	Toronto.
Hilton, Lydia	Belleville.
Hyndman, Elsie	Norwich.
Ingram, Beth	Pembroke.
Lammie, Amy	Hensall.
Lammie, Greta	Hensall.
MacGillivray, Agnes	Listowel.
Miller, Susan	Gravenhurst.
Mishnishcodare, E.	Little Current.
Philpott, Emily	Brockville.
Regimbal, May	St. Boniface, Man.
Sells, Kathryn	London.
Smith, Effie	Brantford.
Stephenson, Muriel	Collingwood.
Slay, Gladys	Sarnia.
Squair, Ethel	Williamstown.
Welsh, Verna	Baldur, Man.
Webster, Helen	Wallaceburg.
Waswanapy, Mary	Ottawa.
West, Bessie	Brampton.
Wiggins, Clarice	Stratton.
Wright, Elsie	St. Catharines.
Thompson, Teresa	Hamilton.

Visits to Schools in the East

In May I paid a visit to several schools in the United States to study conditions there and compare them with our own school, with a view to introducing improvements where advisable. The four schools visited were in Batavia, New York, Philadelphia and Pittsburg. My reception in these schools was all that could be desired, and I shall always remember with gratitude the courtesy and hospitality of the several superintendents who considered no sacrifice of time too great to put me in touch with their programme of studies and general administration of their schools.

The Batavia School most closely resembles the school in Brantford, both in its general situation and in the construction of its main building. This resemblance was more striking before the construction of our dormitories, as Batavia still houses the greater number of its pupils in the school building. The most attractive feature

in connection with the Batavia School is the complete isolation of the Kindergarten department from the rest of the school. The building for this purpose is situated some distance away, and is a marvel of completeness in its interior arrangements for the instruction of the children, their sleeping apartments and their dining-room. An attractive, well-equipped play-ground is adjacent to the building. This same feature of a separate Kindergarten building was observed also in Philadelphia and Pittsburg, and it serves an excellent purpose in keeping the little ones far removed from the influence of the older pupils at a time when their childish minds are in an impressionable state. The home-like surroundings and gentle influences of the separate Kindergarten make the introduction to school life pleasant and cheerful, and many timid children leaving home for the first time fall into the routine of their pleasant school life readily and without that reluctance and timidity which intercourse with older pupils creates.

The well cared for grounds around the Batavia School reminded me of Queen's Park, Toronto, and they formed a striking contrast to the grounds in connection with our school, the chief beauty of which lies in their rusticity and their resemblance to a natural forest.

The New York School is situated in the heart of New York City, close to the great Pennsylvania station, and is within easy sound of the elevated railway and surface traffic of the city. The building is old, but in many respects surprisingly convenient and adapted for the work for which it was established many years ago. Mr. Waite, for many years principal of this school, was the founder of the New York Point system of dot letters, now yielding after many years of controversy to the newly devised Braille system, and the very place seems hallowed with the traditions of his splendid influence. The present principal, Mr. VanCleve, has worn with becoming dignity and merit the mantle descending from the shoulders of that great educator.

The students of this school usually leave for their homes Friday evening, returning Monday morning, thus relieving the teachers and supervisors of the responsibility of providing for their activities during the intervening time. I found the classes more advanced in their studies than in any other school, and was quite impressed with the facility of many of the pupils in reading Latin and French. Excellent work was done in mental arithmetic by several of the classes, the pupils reciting together with much precision and accuracy.

Mr. VanCleve showed me with some pride a plan of a new school for the blind to be erected in the suburbs of New York in the near future, a building, or group of buildings rather, which will be a model of perfection to the minutest detail. Under the very able supervision and management of Mr. VanCleve this new institution will undoubtedly rank with the first in the world.

The next visit was to Overbrook, a suburb of Philadelphia, where I spent a few very pleasant days enjoying the many admirable features of this imposing group of buildings. The school was planned and built by Mr. Allen, now the head of the cottage system at Perkins Institute, Boston, and is a monument to his ingenuity and experience. The same excellent Kindergarten system prevails as at Batavia and the general tone of the whole institution was at once refreshing and stimulating. The most attractive feature, in my opinion, is the two large cloisters through which all pupils must pass in going from their class-rooms to their dining-rooms or dormitories. The promenades are very spacious and form an excellent opportunity for that out-door exercise of which blind pupils are in such need. The court yards

enclosed by these cloisters are filled with vegetation of different species, and the floral effect is pleasant in the extreme. The beautifully equipped assembly hall on the main floor, the attractive design and appearance of the main corridors, the tastily furnished reading-rooms, and the neat, well-ordered class-rooms and dining-rooms, impressed one with a sense that buildings designed long years ago were lamentably lacking in many of the conveniences which contribute to the comfort, welfare and education of blind students.

At Pittsburg I was privileged to spend a few days at one of the best managed schools in the United States, a school whose superintendent has devoted many years to provide an educational outlook for every ambition arising in the hearts of the blind. The Pittsburg School for the Blind is situated in the centre of the city in close proximity to the High School and University buildings, and presents an appearance of architectural beauty and completeness.

In company with the superintendent, Mr. McAloney, I visited the workshops for the blind and found much that was interesting in view of the impending establishment of a similar institution in Toronto. Here as well as in Philadelphia the workshops furnished employment for adults and paid them a living wage. In the latter place about 150 men earned a weekly minimum wage of $9.00 per week, out of which they paid $3.00 for board and lodging in a large furnished home adjacent to the workshops. Opinions differed as to the relative advantages or disadvantages of thus housing the workmen, as I found when on a visit later in the year to a large workshop for the blind at St. Louis. The superintendent here maintained that it was preferable that the men who were associated together during the day's work should disperse in different directions in the evening and thus take their place in the world of seeing people at least part of the time. In Pittsburg I was interested in watching women employed in the new occupation of wrapping armature coils, a very simple operation, at which they become very skillful.

A Visit from the Premier

The pupils of the school were unusually favoured at their closing concert, held Thursday, June 13th. Sir William Hearst, Premier of the Province of Ontario, accompanied by Lady Hearst, accepted an invitation to visit the school and deliver a short address. The Assembly Hall was very tastily decorated and the presence of many of the representatives of the National Council of Women, then attending a convention in the City of Brantford, gave an added pleasure and interest to the proceedings. Sir William in his address spoke of the great interest he had taken in the problems of the blind since assuming the premiership, and assured the students that he would always do so. He was keenly interested in the splendid programme presented by the pupils, and took the opportunity also of addressing a few words of appreciation to the members of the Council of Women for the important part taken by them in all matters of public interest, and particularly for the self-sacrificing spirit manifested by them in their war activities.

The ladies were very much impressed with the work of the pupils, and Mrs. Torrington, President of the Council, in a very touching vote of thanks, expressed the pleasure that she and the other ladies had taken in the evening's performance.

It was very gratifying to have in our concert room such a representative gathering of ladies from all parts of the Dominion. It enabled them for the first time to form some conception of the great problem of educating the blind, and to carry with them to their respective homes the assurance that advantages were being

offered in the Brantford school not generally known and appreciated throughout the Province.

At the request of the Principal, Miss Winifred Davison recited her original poem, "The Isle of Prayer," which is here appended. This poem was read the following day at the opening of the proceedings at the Convention of the National Council of Women, and made a deep impression on the delegates.

The Isle of Prayer

Do you ever feel discouraged with the story of your past?
Have you tried to do your duty, tried and tried and failed at last?
Does your life seem vain and useless, crushed and desolate your heart?
Would you give earth's dearest treasure just to get another start?
Then I know a little island that is just the place for you,
Where your soul may find refreshment, and your life begin anew;
I have often found fresh courage in its purifying air,—
'Tis the place where God meets mortals, 'tis the sacred isle of prayer.

There the sunbeams of forgiveness soon dispel the clouds of gloom,
From our tears of deep repentance flowers of hope begin to bloom;
From the crystal streams of mercy rising, washed and purified,
We begin our lives all over, with a loving Friend to guide.
Let us often seek the pleasure of this happy little isle,
And forget our cares and worries in the sunshine of God's smile;
He has given us many blessings, but no privilege so rare
As a full and free admission to this golden isle of prayer.

—Winifred Davison, *Pupil of the Ontario School for the Blind, Brantford.*

It is interesting to recall the fact that in the report of the Institution for the year 1892, reference is made to the presence during the year of the then Premier of the Province, Sir Oliver Mowat.

The following account of the June concert is taken from the Brantford *Expositor*:—

Blind Pupils give Programme of Excellence

The annual closing concert given on Thursday night by the students of the Ontario School for the Blind was as interesting in its audience as in its arranged programme. Not only did the visiting delegates to the National Council of Women avail themselves of Principal W. B. Race's invitation, but the Premier, Sir. Wm. Hearst, accompanied by Lady Hearst, came to Brantford purposely to be present. The boys and girls had the keen pleasure of performing for an assembly members of which had never heard them before, and for an assembly which would carry the story of the evening's impression east and west across the Dominion. Although the selections were numerous, their splendid variety and excellence, and the avoiding of any delay, made the evening a succession of rare delights.

Principal W. B. Race, in a short address, extended greetings to the distinguished visitors and welcomed back old pupils of the Institute. "The care of the blind is a work that must appeal to all womankind," said Mr. Race, "but particularly to this Council of foremost Canadian women." Mr. Race remarked that while it was a happy coincidence that the ladies were present, Sir William and Lady Hearst had come to Brantford just to see his pupils.

Premier Hearst spoke of it as an unexpected honour to address such a gathering. The Ontario Government, he said, needed the advice, consideration and co-operation of these women. "We are proud of the work of the women of Canada, but there is much yet they can do, sacrifice more, give more, become more earnest to help on to victory.

"It is the ceaseless thought of the Government, and my ceaseless thought," said Sir William to the students, "to see how best we can lead you to be useful in life, and happy yourselves. We are determined that all the teachers and all the equipment shall be the best obtainable; as Kipling says, 'Tis the team work of the everlasting whole.'

"Whatever faculties, whatever abilities God has bestowed on us," he said, "whether many or few, it is our duty to do our best to develop. We must build up a country worthy of the blood that is being shed, and we must make for the Ontario School for the Blind a name throughout not only Canada, but the whole continent, no matter how great the difficulties to be overcome."

To read the programme and to know that every number fulfilled its promise fails entirely to give the almost heart-breaking impression left by seeing the stage grouped with the boys and girls who never turned to even glance down into the audience, to watch little Gladys Brown, aged six, and the other tots go through a Swedish folk dance, to hear wee Kenneth Young recite "Jus' a Boy," to hear the little girls sing, and to marvel at the skill and ability of the pianists, violinists and the boy at the organ, and to admire the tender care the instructors showed for their charges.

Then, just before the end, Mr. Race introduced Miss Winifred Davison, of Meaford, who recited her own composition, "The Isle of Prayer," a poem of musical softness and with a beautiful theme. Miss Davison, Mr. Race said, possessed a real talent, and the poem she gave proved that he was right.

Mrs. Torrington, president of the National Council, very briefly expressed the gratitude of the ladies for the evening's pleasure.

The programme was:

Toy Symphony—Piano, Muriel Stephenson; dulcimer, Willie Metcalfe; violin, Kathryn Sells, Greta Lammie; drums, Susan Miller; trumpets, Harold Webb, Harold Green; triangles, Donald Macalister, John Grausdin; cuckoo, Lillian Clark, Jas. Gash; quails, Christina Dawson, John Philpott; nightingales, Emily Philpott, Fred. Green, Ernest Conway.

Vocal Duet—"The Flower Gatherers" (Glover), Gladys Slay, Gladys Bickerton.

Piano Solo—"Military March," (Schubert-Taustig), Kathryn Sells.

Swedish Folk Dance—Gladys Brown, Grace Gill, Emily Philpott, Marguerite Clarke. John Philpott, Jack Hackett, Ernest Conway, Edward Bettridge.

Vocal Solo—(*a*) "The Garden of the Past (Trotere), (Violin obligato), Greta Lammie; (*b*) "Soldier of My Heart" (Oliver), Gladys Slay.

Piano Solo—"Spinning Song" (Lucas), Susan Miller.

Violin Trio—"The Dolls' Dance" (Poldini), Greta Lammie, Kathryn Sells, Susan Miller.

Piano Solo—"Marche Hongroise" (Kowalski), Muriel Stephenson.

Vocal Solo—"The Heaven of Your Love" (Millbank), Gladys Bickerton.

Reading—"The Naughty Doll" (Eugene Field), Marguerite Clarke.

Organ—"Postlude" (C. Vincent), Willie Metcalfe.

Piano Duo—"Valse Carnavalesque" (Chaminade), Willie Metcalfe, Gordon Anthony.

Part Song—"What Shall I Bring Thee, Dearest" (Mendelssohn), Girls' Choral Class.

Violin Solo—"Allegro Brilliant" (Ten Have), Greta Lammie.

Reading—"Jus' a Boy" (M. Sangster), Kenneth Young.

Piano Solo—"Waltz, Op. 42" (Chopin), Alma Brunsden.

Vocal Duet—"Over the Crystal Waters" (H. J. Noble), Helen Webster, Kathryn Sells.

Reading—"Preparing to Receive Company" (J. M. Barrie), Ethel Squair.

Motion Part Song—"The Flower Song," Girls' Choral Class.

Overture, Piano—"Tancredi" (Rossini), Kathryn Sells, Greta Lammie, Susan Miller, Muriel Stephenson.

"God Save the King."

Employment for the Students

Last year I reported the employment of two of our young men as piano tuners with the Doherty Co. of Clinton. Excellent reports have come to me of the work they are doing.

The boys have become thoroughly impressed with a sense of their responsibility in making good, so that other pupils from the school may not suffer through inefficiency on their part. Since then three others have obtained lucrative positions in piano factories in Toronto, and one in Montreal. Letters of enquiry have come from different quarters asking for piano tuners, and frequent reference is made to the good work of the boys who are trained in our school.

In explanation of this it may be mentioned that pupils will not be given an outfit until in the opinion of their instructor they are well qualified, nor will they receive a recommendation from the school.

There seemed to be no reason why the girls should not have an equal chance to make a livelihood in finding a useful scope for their capabilities. An appeal to the Patterson Biscuit Co., of Brantford, secured a trial for two of our older pupils in the candy department, where they became skilful enough at wrapping candies in paper packages to make them self-sustaining. A sympathetic attitude on the part of their employer did much to help the girls in the early days of their new work in strange surroundings, and the employees vied with one another in helping them to become expert. An ex-pupil, hearing of their success, wrote for a word of assistance in securing like employment in Toronto. A recommendation from the manager of the Brantford factory had the desired effect of securing a position for the young lady in question, who has written in terms of grateful appreciation for the new avenue in life opened up to her. It is difficult for seeing persons to realize to the fullest extent the blessing of honest labour. The sense of dependence upon others for a livelihood is most depressing to the spirits, and it is not to be wondered at that the blind so frequently chafe at their helplessness, not so much in their inability to do work as in their inability to get work. There is to-day a joy in the hearts of these girls and a sunshine in their lives hitherto unknown, because by their own efforts they are enabled to procure the very things that most people disdain as commonplace.

Miss Winifred Davison secured a position as stenographer to the new director of the Canadian National Institute for the Blind, and several others have found places as telephone operators, field agents, and instructors throughout the Province.

Addresses and Entertainments

The Tuesday evening concerts were held as usual throughout the year and occasionally an interesting address was given by an outsider upon some topic of interest. So thoroughly were they appreciated that the practice will be continued.

The Masonic Choir of Brantford, consisting of forty voices under the very efficient leadership of Mr. Schofield, contributed to the enjoyment of the pupils one of the most delightful musical programmes it had ever been their privilege to hear. The members of this choir were amply repaid for their efforts by the appreciative hearing and enthusiastic reception given them by the numerous music lovers in our school.

On another occasion a Brantford male quartette visited the school and charmed our pupils with the melody of their songs for nearly two hours. It was difficult to estimate which enjoyed the evening the more, the entertainers or the entertained, for the pupils were so pleased with what they heard and their expression of it was so demonstrative that the quartette realized better than ever before the important part that music plays in the education and enjoyment of the blind.

Later in the year a full programme which had been given in the Opera House a week previously was reproduced in the Assembly Hall, by a Company under the auspices of the Massey-Harris Co., which had been formed to raise money for the employees' fund.

The readiness of these various musical organizations to share of their gifts with the blind is deeply appreciated by everybody in connection with the school.

The following account of the Christmas concert is taken from the Brantford *Expositor*:—

There is one entertainment given regularly in the city that never loses its charm, in itself it has a pathetic charm, and it is always of a degree of merit. It is the Christmas concert at the School for the Blind. At this year's event last night a well filled hall enjoyed a programme of interesting pieces by the little people and genuinely good musical selections from the senior students. Miss Kilmaster, the talented musical directress, whose appointment was made in September, was creditably reflected in her pupils.

Principal Race welcomed the visitors to the school. He spoke of the changes in the faculty this year and the work being done by each new teacher. With just pride Mr. Race told about the success being attained by pupils from the school who this year had begun their life in the seeing world. He extended a sincere season's message to his students, who leave for their homes to-day.

Mr. Race mentioned the fact that last September he had introduced high school work into the school. He had sought for the best talent he could find for this work, and he had secured the appointment of a young girl, Miss Summerby, whose career through school and university had been phenomenally brilliant.

The programme throughout was well chosen, entertaining and of real merit. The audience was as interested in watching the movements of the youthful participants as in hearing their numbers. The boys and girls moved across the stage with a great deal of confidence. Mr. Race explained that he had encouraged them to move about alone as much as possible.

The programme opened with a difficult piano solo, played with a well-trained touch, by Miss Gladys Bickerton. Her selection was Tchaikovsky's "Barcarole." Following this the choral class introduced the Christmas spirit by a Christmas carol, "See, Amid the Winter's Snow." Three times the choral class sang together, each time doing their part singing with distinct excellence. The youthful voices were well blended and their notes were rounded out under careful training. Toward the end of the programme the girls alone sang Gounod's "Come, Sing to Me," and they gave the beautiful song in a chorus of sweet, harmonious voices.

A tiny tot, Grace Gill, charmed everyone with a Christmas recitation, "Somebody's Picture." The training in elocution was given throughout by Miss McGuire.

One of the sweetest numbers on the programme was a piano trio, played by a little brother and sister, Emily and John Philpott, and their companion, Jack Hackett. With delicate touch and some precision they gave Czerny's "The Chase." Miss Gladys Slay's solo, "My Lovely Celia," was very soft and pretty.

After this Mr. Race led out little Clayton French, aged 10 years, who, he said, had just come to the school from Saskatchewan. Clayton recited so that everyone heard every word with ease.

Miss Mary O'Neill played, with a considerable display of technique, "Polichinelle," by Rachmaninoff. The evidences of her training were apparent.

Schumann's "Papillons" was played with an artiste's touch and musical instinct by Miss Susan Miller, a very gracious young girl about 17. She played the long and beautiful piece, of course, entirely from memory.

The boys, Gordon Anthony, Melville Salter, William Metcalfe and Walter Garlick, repeated their harmonious quartette, "Sweet and Low," sung for Dr. Cody.

Two other little people, a little girl, Grace Gill, and a wee lad, Ernest Conway, both recited long pieces, too, showing what good memories they had. Ernest responded to an encore with a short poem composed by himself.

Solos, one on the piano and one on the pipe organ, were given by William Metcalfe and Roy Tomlinson. Master Metcalfe's selection, "Rustle of Spring," was played with perfection of fingering, time and effect. Roy Tomlinson is one of the Institution's most gifted student musicians and he displayed his skill in Smart's "Andante in G." Roy also played Moskowski's "Valse in E" on the piano, with a subdued touch and gliding rhythm, ending with a masterful climax.

A part of the programme of a different note was provided by Miss Blanche Kaufman, who recited in good Negro dialect, "The Party." Everybody enjoyed it. Her selection was another good memory test.

Miss Greta Lammie contributed very materially to the evening's pleasure by her violin solo, "Il Trovatore." She played with confidence, but her touch was light and graceful. Her selection was a happy one, and through the shades of inflexion she really was wonderful. Her teacher, Miss Jones, accompanied her. Miss Kathryn Sells followed Miss Lammie, playing on the piano Chopin's "Ballade in A flat," with a sweet finish.

Last, but not least, the choral class sang as a finale "Marselllaise," "Rule Britannia," and "God Save the King."

Social Evenings

The members of the Boys' Club which was organized last year for the purpose of creating a better spirit among the pupils and of discountenancing certain practices, which tended to lower the general tone of the school, have enjoyed to the full the club room fitted up for them. Many pleasant hours are spent there in games of various kinds, such as cards, dominoes, checkers, crokinole, and bagatelle. The playing cards are so marked in the corners that the card can be distinguished easily and quickly by the feel. The dominoes have the spots raised instead of in cells, and the checkers have pegs to hold them securely in their places, the distinction consisting of rough and smooth surfaces. An At Home was held during the winter to which Collegiate students from the city were invited. A programme was given in the Assembly Hall in which the visitors took part, after which the time was spent in the club room in amusements of various kinds. A luncheon was served by the lady teachers and the boys sang before dispersing many of the favourite college and popular songs.

The girls too entertained a number of their friends from the Collegiate and a similar evening of enjoyment was spent.

A sitting room furnished with curtains, rug and tables, has been fitted up for their use. This room presents an attractive, home-like and inviting appearance, the girls taking turns in keeping it in order.

Influenza Epidemic

When the epidemic generally known as Spanish influenza, or "flu," swept over Canada after raging with serious results in the United States, Brantford was not spared, and according to published reports suffered more fatalities per population than any other city in the Dominion. It is a matter for congratulation that although many of our pupils and teachers were stricken down and confined to the hospital, no deaths occurred. It is a high tribute to the excellent work done by our trained nurse, Miss Wright, and the school physician, that no very serious cases developed. Altogether sixty pupils, seven teachers and four maids were in the hospital, of whom over thirty were confined to bed at one time, and the strength of our nurse and assistants was taxed to the utmost. Everything was made subservient to the care of the sick and it is with pleasure that I bear testimony to the splendid spirit of helpfulness shown by all the officials of the school in combatting a scourge which played such havoc among the citizens of Brantford.

It is interesting to note by a reference to the report published in 1890, that a somewhat similar condition existed during the LaGrippe epidemic which raged at that time. Larger numbers were cared for by special trained nurses, and several of the officers were reported to be very seriously ill. The fitting up of our hospital with such excellent facilities for caring for the sick has been more than justified by the splendid fortification it provided against the prevailing malady.

Introduction of Braille

The final step in securing a uniform system of point reading was taken at the Colorado Springs Convention in June, when a resolution was unanimously passed confirming the action of the Workers for the Blind at Portland in June, 1917, in adopting the new Braille, grade 1½, in the place of the New York Point.

The importance of this can only be estimated by realizing that at present one-half the schools in the United States are using what is known as American Braille

and the other half the New York Point. The School for the Blind in Halifax has always used the British Braille, and the school in Brantford the New York Point. The new Braille more closely resembles the British Braille than any other, differing chiefly in the limited number of contractions and in the capital and italic signs. The change from one system to the other will result in the discarding of thousands of books now filling the shelves of all the libraries for the blind in America, and gradually replacing them as rapidly as they are printed with books in the new type. The publishing houses for the blind will only print henceforth such text in the old type to keep the schools supplied during the gradual transition to the new system. The junior classes in all schools have introduced the new type this autumn and will carry the classes forward until the old system has been completely run out.

Anticipating a move of this kind as a result of the Convention's deliberations, I purchased about twenty copies of "The Deserter," by Richard Harding Davis, printed in the Braille, Grade 1½, and gave the senior pupils three lessons of one half hour per week last spring, with the result that the majority of the pupils learned to read very readily and a few of them with the same facility and precision as with the New York Point. The system is by no means difficult, and to a person familiar with the one, the task is a very simple one of learning the other within a few months.

Our school will suffer the same inconvenience as others on account of the inability of the publishers to supply the immediate demand for Primary text-books, and the embargo on text-books printed in the old system make it very awkward to keep our classes properly supplied. However, the ingenuity and resourcefulness of our teachers accomplish wonders, and the advance made in all branches of the school work is quite satisfactory under the circumstances.

On Hearing of the Signing of the Armistice

When the city bells and whistles proclaimed at three o'clock in the morning of November 11th the joyful news that the terms of the armistice had been accepted by the Germans, our pupils, who had retired with one ear on the alert for the expected signal, rose and gave themselves up to the same unrestrained jubilation that was in evidence all over Canada. Darkness was the same as light to them, and with the feeling that the exceptional circumstances would justify any breach of the rules regarding boundary lines, they went down town in a body, old and young, boys and girls, in different directions, and contributed in their own way to the din that was heard in all parts of the city.

Returning to their breakfast at seven o'clock they serenaded the superintendent in his residence with the song, "Here We Are Again," their voices being much the worse for wear and suggesting the croaking of frogs after a night of unusual activity. At the opening services in the Assembly Hall the pupils sang with more than usual fervour, to the beautiful accompaniment of the pipe organ, the National Anthem, and "God Save Our Splendid Men," after which the pathos of "Peace, Perfect Peace," sung with much feeling, had the effect of subduing their spirits and making them realize in the fullest measure the import of the good news. All felt as if a dark cloud, which had been hovering ominously overhead for some time, had suddenly been lifted and the beautiful sunlight of peace was again spreading its sweet message of joy and beauty to their souls. Many wept as they thought of fathers and brothers who would never return, and others rejoiced in the assurance that with the return of their loved ones from overseas, the anxiety which had been

lurking in their hearts would be removed, and life would resume its course as in the old far-off days before the German war lords thrust their swords into the heart of civilization.

Britain's part in the great struggle was referred to by the principal, and the proper tribute was paid to the heroic sacrifices of our own Canadians. A holiday was declared, and the pupils dispersed to give themselves up again to the celebration which was in preparation throughout the city.

Concerts at Outside Points

The members of the Girls' Club with an enterprise and an interest creditable to their sympathies, prepared a very interesting programme to obtain funds for the relief of the sufferers in the Halifax explosion. The numbers were prepared by their own members, the tickets were sold by their own efforts, the expenses were paid out of the proceeds of the concert which was given in the Conservatory of Music down town, kindly loaned them for the occasion by their teacher, Mr. Andrews, and over fifty dollars was forwarded to Sir Frederick Fraser, Superintendent of the Halifax School for the Blind, to be applied to the relief of the blinded children as he saw fit. This sum was suitably and gracefully acknowledged by Sir Frederick, and the pupils appreciated highly the expressions of reciprocal esteem conveyed to them in his letter.

The following is an account taken from the Sarnia *Observer* of a concert given in that city by three pupils of the school:—

The City Hall was crowded Thursday evening with Sarnia musical people to hear the three young ladies from the Ontario School for the Blind. Mr. F. F. Pardee, M.P., occupied the chair. Seated with him on the platform was the conductor of the Brantford Conservatory of Music, Mr. Norman Andrews, who at the close of the programme thanked the people for their attendance and hearty reception given the young artists on this occasion, this being their first concert given outside the school. He also spoke very highly of the young ladies in the school and their accomplishments.

Miss Gladys Slay, soprano soloist, is a Sarnia young lady possessing a wonderful voice with great sweetness and range—her articulation and enunciation were perfect. She responded to encores again and again. Her many friends in Sarnia were delighted at this, her first appearance. Miss Slay contributed a reading to the delight of all.

Miss Greta Lammie, violinist and reader, showed wonderful talent for one so young. Her playing made hosts of friends for her in Sarnia.

Miss Kathryn Sells, pianist and accompanist, is a marvel to all musical people who heard her play all the difficult piano solos and accompaniments from memory, perfectly, without a single mistake.

Sarnia people have seldom heard a pianist as good as Miss Sells.

These young ladies should be secured for a concert in the fall or winter, so as to give everyone an opportunity of another musical treat.

Arrangements have been made by A. W. Mills to have these three young ladies take part in the service at the Central Baptist Church Sunday evening next.

The church will be crowded on this occasion, so friends are advised to go early so as to make sure of a good seat.

The concert was given under the auspices of Miss Gladys Slay.

The pupils on another occasion were taken by the Musical Director to give a concert in the City of Galt, of which the newspaper in that city spoke in terms of highest praise.

Appeal made to Inspectors of Schools

During the month of March the following circular was sent to all the school inspectors of the Province of Ontario in an endeavour to enlist the co-operation of

men, interested in education generally, towards seeing that the youthful blind of the Province should hear about and take advantage of the privileges offered them in the Ontario School for the Blind. From many of these inspectors responses were received, with the result that pupils now are in attendance who might otherwise have been unaware of the existence of a school for their education and training.

To .....,

Inspector of Public Schools.

Dear Sir:

Will you be good enough to assist me in getting in touch with the youthful blind of our Province by sending me the names and addresses of any blind young people within your inspectorate? I realize that in asking you to do this I am putting you to some inconvenience and trouble, but I am presuming upon your sympathetic interest as an educationalist to help me to reach those unfortunate afflicted ones who are being denied the advantages of an education through a lack of knowledge of our educational institution.

The Ontario School for the Blind located in Brantford and maintained by the Government of Ontario free of charge for board and tuition, is a school for the education of children and youths of both sexes under the age of twenty-one. It is not a hospital, nor an asylum, nor a home, but a *school*, where children who cannot see well enough to attend the public schools are given an English education, including music, and are taught to do such useful work as the blind are capable of doing. Such educational training must promote the comfort, happiness and independence of those who are deprived of the blessing of sight.

Your co-operation in this desirable work will be much appreciated.

Yours fraternally,

W. B. Race,

Superintendent.

Dental Inspection and Care of Teeth

Among the many features of interest noted during my visit last spring to American Schools for the Blind, was the care and attention given to the pupils' teeth.

It was claimed that the general health was greatly improved by this systematic care, as many of the ailments, such as indigestion, were really the result of improperly cared for teeth. Last year our school physician advised many of our pupils to have their teeth attended to during the summer vacation, but whether through indifference or inability, very little was done.

An appropriation was asked for and granted for this purpose, and the pupils are already receiving the necessary attention to their teeth as rapidly as possible without interrupting the work of the classes.

Affiliation with Toronto University in Music

There has been a desire for some time among the pupils and ex-pupils of the school that they be permitted to write upon the same examinations in music as seeing students, and in response to this desire arrangements have been made for them to take the same course as outlined in the University Calendar, substituting for sight reading improvization in accordance with a suggestion from Dr. Ham. The change will give them confidence in their standing and pride in the diploma that they receive, and remove for all time the hint frequently made that their diploma was given as a matter of course, and did not represent a degree of attainment which its possession signified.

Improvement in Appearance

Following my recommendation last year that assistance should be given in the matter of the removal of eyes which were unsightly to look upon and a real menace to the health of the pupil, I have pleasure in reporting a marked improvement in the appearance of those who underwent the necessary operation. Parents naturally hesitate about giving their consent to what is really a very simple operation, and some cling to the hope that there is still a possibility of a partial restoration to sight. Under no circumstances whatever would I permit the removal of an eye where the remotest chance remained of ever regaining the faintest degree of sight. The possession of this precious gleam far outweighs the desirability of removing an eye, no matter how repulsive.

Pupils' Clothing

Last July the following circular letter was sent to the parents of pupils, both former and prospective, with regard to clothing. This was found necessary owing to the delay often experienced in obtaining much needed articles of clothing, after the attention of parents is called to the fact. We have many visitors from all parts of the Dominion, and if parents only realized how shabby their children sometimes appear because of their failure to supply them with suitable clothing, they would take a little more interest in seeing that their needs were supplied promptly.

Letters are received regularly asking upon what terms pupils are admitted, what the annual fee is, and how much is charged for board. The answer sent is always to the effect that board and tuition are free to *bona fide* residents of the Province of Ontario, but it is insisted that sufficient and suitable clothing should be provided, and travelling expenses paid to and from the school.

To the Parents of the Pupils Attending the Ontario School for the Blind

The term will reopen Wednesday, September 25th, and the attention of the parents is drawn to the fact that pupils should not be permitted to return to the School without an adequate supply of clothing. It is not to be expected that sturdy boys and girls can go through the school year from September to June with only one suit of clothes and one pair of boots. The enclosed list is intended to draw attention to the articles of clothing needed, and it is also urged that each article be plainly marked so that there will be no danger of loss in the laundry.

Pupils should also have a small sum of money on deposit in the Office to pay for having shoes repaired, glasses mended, and other incidental expenses which arise unexpectedly from time to time and must be met without delay.

W. B RACE,
Superintendent.

Girl's List

All articles to be marked with name, and all articles to be in good condition.

4 Middies.
2 Skirts, dark and of good quality.
1 Sunday dress.
3 Undervests.
3 Vests.
3 Pairs of drawers.
2 Dark petticoats.
1 Light petticoat.
3 Night-dresses.
3 Pairs of stockings.
1 Pair rubbers.
2 Pairs shoes.
1 Cap.
1 Pair gloves for winter.
Comb and brush.
Toothbrush.
Kimona.
6 Handkerchiefs.
Slippers.
Extra shoelaces.

Boy's List

All articles to be marked with name, and all articles to be in good condition.

1 Suit for Sunday.
2 Extra pairs of pants.
1 Overcoat.
2 Light blouses (to be made with collar and waist band).
3 Dark blouses.
3 Suits of underwear.
6 Pairs of stockings or socks.
2 Pairs of boots.
1 Pair of rubbers.
2 Sweater coats.
2 Nightshirts.
Suspenders.
1 Pair of mittens.
Neckties.
6 Handkerchiefs.
1 Toothbrush.
1 Comb and brush.
2 Caps.
2 Wash cloths.
Extra shoelaces.

Typewriting

Much interest has been taken in our typewriting classes, especially among the older pupils whose spelling is not faulty. This instruction is given by the stenographer, and good results are being shown. As a result of her training last year Miss Winifred Davison is now in receipt of a good salary as stenographer in the National Institute for the Blind, Toronto. Miss Davison acquired unusual facility at this work after a comparatively short period of training, which shows what intensive work will accomplish when there is the incentive of a good position ahead. She learned to take notes in Braille shorthand, but this was rendered unnecessary by the use of a dictaphone from which she does all her typing. I venture to hope that a dictaphone may be added to our equipment, so that the training in this important branch may be completed before the pupils leave the school.

Visitors

During the year we were honoured with a visit from Mr. Ross, the Deputy Minister of Education for the Province of Alberta. Mr. Ross expressed himself as highly pleased with the provision made for the education and training of the Western pupils, and readily acceded to our suggestion that the Alberta Government should provide a broom-making outfit for a young man from that province, and also keep in touch with the success following his efforts to earn a living at his own home.

The Hon. R. T. Thornton, Minister of Education for Manitoba, paid a visit to the school during the summer months to obtain information regarding the industrial work of the school. As the school was not in session he was unfortunately not able to see the students at work, but he took a keen interest in inspecting the buildings and classrooms, and discussing the various problems in the education and training of blind youth.

The Hon. Dr. Cody, the recently appointed Minister of Education, spent a day in Brantford in the interests of technical education, and visited many of the city schools and several factories. Among the schools visited was the School for the Blind, where he delivered a brief address which was listened to with much interest.

Dr. Cody expressed himself as highly pleased with the reception given him and

was greatly impressed by the excellence of the musical numbers given for his benefit, and the rapid reading of Braille by one of the pupils.

One of the most enjoyable addresses given in our school was given by Lieut.-Colonel Mulloy, popularly known throughout Canada as Trooper Mulloy. Colonel Mulloy has the distinction of being the only Canadian who lost his eyesight in the South African war, but, with an ambition that surmounted all obstacles, he graduated from Queen's University and afterwards spent three years in post graduate work at Oxford. His address was full of helpful inspiration and he laid special emphasis on the supremacy of the spirit above all else.

Sir Arthur Pearson's visit to Toronto has done much to stimulate public interest in the blind of Canada, especially the blinded soldiers, for whom a beautifully furnished home named Pearson Hall, was formally opened by the blind baronet. One could not help but be impressed by the cheerful optimism which radiated from Sir Arthur's personality, and it is a matter of great regret that owing to the pressure of his engagements elsewhere he was unable to pay the expected visit to our school.

Farm Operations

The question frequently arises as to the logical association of a farm with a school for the blind. The blind from the very nature of their handicap are precluded from playing an important part in the work pertaining to a farm, and cannot for that reason contribute to its maintenance, or derive benefit from their experience. There is some difference of opinion on this point, and individual cases are cited of young men giving valuable assistance in many of the operations that make up the daily routine of farm life. But a school for the blind is not a place to send a boy to learn to hew wood or draw water, nor is it the best place to become acquainted with stock and assist in the care of it.

The property belonging to the Ontario School for the Blind is becoming very valuable and parts of it could be disposed of to good advantage. The money thus acquired would go a long way toward providing separate Kindergarten quarters, or remodeling the school building, which remains to-day much as it was over forty years ago.

The roots and vegetables were very abundant this year, the milk supply has been more than ample for our needs, and the cellar is well stocked with apples from the orchard.

Improvements in Buildings and Grounds

During the summer vacation advantage was taken of the absence of the pupils to make certain changes of a minor nature to improve the appearance and convenience of the corridors, class-rooms, dining-rooms and sitting-rooms. The Boys' Club Room was tastily renovated and given an attractive appearance more in harmony with the purpose for which it was intended. The dining-rooms were tinted, new blinds were added throughout, new chairs were provided, and with the white table linen and new cutlery there is a refreshing home-like appearance hitherto absent.

The removal of the upper panels in all the doors of the rooms on the first floor and replacing them with glass has served the double purpose of lighting the hallways and enabling those who are passing through to see what is going on in the class-rooms and practice rooms without opening the doors and disturbing those who are busily engaged in their work.

The ground to the east of the boys' dormitory has been levelled, terraced and seeded, and the general appearance of the place has been greatly improved.

The lower limbs of the trees in the park and along the walks have been cut, and the grounds present a less shaggy and unkempt appearance. There remains yet much work to be done in the way of improving the roadways and sidewalks leading up to the main building.

The absence of drinking fountains in the school is a great inconvenience, and I recommend that these be installed as soon as possible. A programme clock to ring automatically the changes in the lesson periods and the summons to meals and roll-call is badly needed, as the present gong is not heard in all parts of the building, especially where the pupils are practising on the piano or attending vocal classes on the third floor.

New Musical Director

The resignation of Mr. W. Norman Andrews as Musical Director after eleven years' association with the school made it necessary to secure a successor in time for the school opening in September. The vacancy was filled by the appointment of Miss Jeannette Killmaster, of Port Rowan. Miss Killmaster comes very highly recommended. She is a graduate of the Toronto Conservatory of Music, afterwards spending three years abroad studying under the best masters. For several years after her return she taught music in Peterborough and was associated for some time with Miss Veal's school, "Glen Mawr," Toronto.

Industrial Department

The work of the Industrial Department during the past year proceeded with much regularity. A reference to the report of Mr. Donkin, the instructor, shows the interest that was taken in broom-making, an industry introduced for the first time into our school last session. As a result of this training one of the young men secured a place in the Workshop for the Blind at Ottawa, where he has been working successfully on a self-sustaining basis. Another young man from the Canadian West was provided with an outfit, consisting of machinery and a supply of broom corn, by the Alberta Government, and from the latest reports has been doing a successful business making brooms at his own home.

Much time was devoted to chair-caning, at which the boys are very skilful, but the experiment in the shoe department was not a success and shoe-making has been given up.

Manual training benches have been installed in the workshop to resume the Sloyd work which had been interrupted for several years. The best equipped schools for the blind in the United States were not without this very valuable aid to the training of the pupils, and a knowledge of the use of tools is of as much importance to the training of the blind as of seeing pupils.

Illness of Miss Cronk

The many friends of Miss Cronk will be sorry to read in Dr. Marquis' report that she has suffered from a cerebral hemorrhage. Miss Cronk has been associated with the O. S. B. since its establishment in 1872, and as the visitors' attendant gave many years of faithful and valuable service. Everybody, therefore, who attended the school will remember her and regret that owing to her attack she is absent from her usual place. She is at present at the home of her brother in Wellington, Ont., on sick leave.

The Convention in 1919

The convention of the American Association of Workers for the Blind will be held in Toronto in June, 1919, and it is a happy coincidence that the Director of the National Institute for the Blind of Toronto, Mr. C. W. Holmes, is the president of the Association. It is to be hoped that all who are interested in the blind will avail themselves of this opportunity to hear the interesting discussions which will certainly form part of the deliberations of the gathering. It is the first time that Canada has ever been favoured with a convention of this kind, and the representatives of the various schools and workshops in the United States are looking forward to the rare treat of a visit to Canada, and especially to a city which so distinguished itself in its voluntary enlistment for overseas service and in the raising of funds for every purpose in connection with the war.

Convention at Colorado Springs

It was my privilege in June to attend the convention at Colorado Springs of the American Association of Instructors of the Blind. Delegates were there from nearly every State in the Union, among whom were thirty-two superintendents of American schools and many teachers and workers interested in hearing the discussions arising from a very promising programme. En route to the convention visits were paid to the schools for the blind in St. Louis and Kansas City, visits which served to break the monotony of a tedious midsummer railway trip and to enable the delegates to visit the schools and workshops for the blind. Superintendents Green and Harrison, ably assisted by their wives, gave a most cordial reception to the delegates and spared no efforts to make the occasion a profitable and memorable one.

I was deeply interested in meeting for the first time the heads of so many schools and to hear first hand the various viewpoints on the many problems affecting the blind. The papers read in the convention were able and interesting, and the discussion arising from them profitable, but the greatest benefit derived was in the interchange of ideas away from the convention hall.

The convention was held in one of the loveliest spots in all America, embracing as it does the beauty of mountain peaks, ravines and waterfalls on the heroic scale of the west. Pike's Peak is in full view of the school a short distance away.

The Colorado School for the Blind and Deaf was planned and built with generous completeness, from the separate little surgically perfect hospital building to the well-stocked farm with its forty head of cattle, and the greenhouse which supplies all the tables in the school with flowers the year round.

The convention itself was like Walt Whitman's "City of Comrades," every man and every woman filled with the same cordial desire to do what was best for the education of the sorely handicapped children entrusted to their charge. The general atmosphere of helpfulness and sympathetic consideration of each other's problems was refreshing, and that much good was derived from the association together for several days there can be no doubt. I came away from the convention feeling that the interests of the blind in America could not have been entrusted to a more whole-souled, cultured group of men and women than those who had been selected by their several states for their special fitness for that purpose.

The convention was called to order in the chapel of the school the evening of our arrival, by Superintendent W. K. Argo. Addresses of welcome were made by

the mayor of the city and others, and fittingly responded to by the President of the Association.

Mr. Thomas S. McAloney, President of the Association and Superintendent of the Pittsburg School for the Blind, delivered his presidential address in which he made a feeling reference to the passing of three superintendents since the last convention, Mr. John E. Ray of North Carolina, Mr. J. V. Armstrong of Tennessee, and Mr. William Bell Wait of New York.

Speaking on "The New Education and its Relation to and Influence upon the Education of the Blind," he gave a brief summary of the features which have been introduced or else perfected in the past decade as follows:—

1. The adoption of a uniform type for the blind of the English-speaking world.
2. The gradual elimination of pupils of very low mentality from our schools.
3. The introduction of sight-saving classes for the partially blind in institutions for the blind and in public schools.
4. The regular and scientific training of our girls in homemaking.
5. The systematic physical training given our pupils in the gymnasium, the swimming pool and on the athletic field, the holding of competitive athletic meets which has done much to promote self-confidence and school pride.
6. The education of the blind with the seeing in high schools and universities, as well as in special classes for the blind in public schools.
7. The introduction of new courses of study which are more elastic and which give equal opportunity for the development of the bright as well as the dull child.
8. The establishment of separate kindergartens for the young blind.
9. Greater attention to vocational work, especially for those of lower mentality.
10. The extension of the educational work to include the services of a field officer.
11. The establishment of national and state associations for the prevention of blindness.
12. The organization of associations for the adult blind which co-operate with our schools in establishing our ex-pupils and graduates in the work they are best prepared to do.

Miss Mabel Gillis, Librarian of the Department of Books for the Blind in California State Library, evidently belongs to the new generation of librarians, whose object is not to keep their books in neat rows on the shelves but to get them honestly worn out in the hands of readers. She spoke of sending books in all the known types for the blind—some fifty or sixty per day— to Washington, Nebraska, the Hawaiian Islands, and even Chinese books to China.

Thereupon some discussion arose as to the advisability of libraries crossing each other's territory in this manner and a committee was appointed to make a survey and to recommend the location of libraries in Canada and the United States.

Miss Susan B. Merwin, State Superintendent of the Kentucky School for the Blind, Louisville, dealt with the subject of typewriting and maintained that it should find a conspicuous place in schools for the blind because it affords an excellent method of teaching spelling, English and correct pronunciation: because it develops quickness and accuracy of thought and action; because it is invaluable in the pursuit of any career, whether business or professional; because it means that the blind may be less dependent and better equipped for the struggle of life, and because it affords another opportunity for a livelihood. In the Kentucky school only pupils who have had seventh or eighth grade English are given instruction,

which high standard of eligibility has acted as a wonderful stimulus to better language and grammar work. Blind pupils are usually bad spellers, which is due probably to the fact that the written word makes less of an impression on the finger than on the eye. The use of the typewriter develops quickness of thought and action. Most blind pupils need a stimulus to promptness. Composition directly on the typewriter requires the concentration of a keen, alert mind, and such training is invaluable. The knowledge that the blind writer cannot see to erase and correct errors makes him accurate and careful both in thought and mechanical operation.

The blind student who has thoroughly mastered the typewriter feels a certain sense of independence and security because he knows his handicap is very materially lessened. It is surely a great comfort as well as a wonderful advantage to be thus able to express one's self independently.

If this independence is desirable in school and home life, its value cannot be estimated in the pursuit of a business or professional career. In any business in which the blind man or woman may engage or in any profession which they may seek, the typewriter plays a most important part.

The real purpose of typewriting as it should be taught in our schools for the blind is not to make typists of our pupils—some few may become successful in this field of endeavour—but its real purpose should be to help the blind to help themselves.

In the discussion which followed sides were taken on the question of the age at which children should be permitted to use the typewriter, some superintendents stating that they allowed children of nine years of age to write to their parents in this way, others standing for dignity and restraint, allowing the use of the typewriter as a special privilege to be accorded only to those who had shown themselves capable of appreciating the need of care in the use of the machine.

Report of the Committee on Uniform Type

An important feature of the convention was the report of the Committee on Uniform Type, given by Mr. H. R. Latimer, of Baltimore. He gave an interesting account of the difficulties in the way of the committee, the inertia to be overcome, and the thousands of volumes that would have to be rejected as soon as the present generation of readers had passed away. The plan to be followed was to leave the present stock of books everywhere for the use of those who could read them, but to introduce the Revised Braille, grade 1½, into the printing houses and the lowest grades of our schools.

This Revised Braille was an evolution of the English Braille, which upon careful investigation had proved its superiority in ease and simplicity over the New York Point System. One subject in dispute was the use of contractions. It was found that 150 contractions served to save only 3½ per cent. of space, with the result that these had been rejected. At the Halifax convention this revised Braille had been adopted, although the English had not yet officially accepted it.

The convention then by a unanimous standing vote adopted the Revised Braille, grade 1½, recommended by the committee, thus settling definitely a much vexed question, which had tended to disturb the harmony of many previous conventions.

Mr. McAloney made the interesting statement that in Pittsburg one hundred and thirty women had learned Braille during the preceding winter, and of these fifty were copying books during the summer.

Musical Training of the Blind

In an excellent paper on the above mentioned topic, Miss Adelaide M. Carman of the Indianapolis school drew attention to the fact that in one respect at least schools for the blind had been for years in advance of the public school system. Far-sighted men in the very beginning of the work for the blind knew the value of music as an educational factor, and gave it an equal place with the literary and industrial. This probably accounts for the idea that the blind are unusually gifted in music, whereas their general culture in music has been more extensive and their appreciation consequently in advance of other students. Miss Carman divides students into four classes, as follows:—

First. Those whose knowledge of music is gained entirely from class work in chorus, ear-training, and solfeggii.

Second. Those who have individual training in the various branches and whom we wisely or otherwise classify as mediocre.

Third. Those who by one-tenth talent and nine-tenths application, or as some one defines genius—one-tenth inspiration and nine-tenths perspiration—are able to win for themselves more or less of a place as performers and teachers.

Fourth. Now the fourth class is somewhat conspicuous by its absence. I refer to the artist and teacher of recognized and equal ability with the best. Of these there are no great number yet, but this does not signify that it must always be so. Because we cannot make artists of all of our students do we despair? Not at all. The real teacher has faith that every earnest effort clears the way to some extent.

Superintendent E. E. Bramlette of Texas laid emphasis on the fact with which other superintendents agreed heartily, but which the general public does not always realize, that the education of the blind child does not differ in essentials from that of the seeing child, and that therefore schools for the blind are not eleemosynary institutions but free public schools.

Superintendent G. F. Oliphant of Georgia gave a most refreshing paper, full of pricks and spurs. It was a difficult paper to reproduce, not being divided into classified headings, and the large and stimulating thoughts he expressed sent the mind far afield; and yet it was practical, too, in the broadest sense. Freedom, he said, is not a gift, it is an achievement; freedom is not the right to be idle, it is not the right to refuse obedience. There are no such rights. Freedom is the right to choose our work, to choose whom we will obey. Instructors for the blind have a tendency to repress individuality, but it is the business of the true teacher to encourage those individual traits which are helpful and to repress those that are the reverse. Primarily there are no weeds nor bad men. There are only bad gardeners and bad teachers. If we believe this we can develop the growth of our pupils instead of repressing and destroying and obstructing. We cannot make anything grow. We can only produce conditions of growth and let it grow. The spiritual kingdom is as if man should cast seed into the ground and it groweth up night and day he knows not how. "Much of our trouble and discipline comes of our getting in the path of the lusty soul and getting run over."

He touched upon the treatment of partially seeing pupils. They are sometimes a convenience, but their reaction on the education of those really blind is in most schools wholly bad.

On the other hand the education of the blind should produce individuals so efficient and capable that they will soon merge themselves into the world of seeing

people. It is a fine compliment to pay a blind person to say of him, "in his presence I entirely forget he is blind."

One invigorating thought the speaker expressed was that we must not encourage our pupils or ourselves to dodge life, to seek soft places, to refuse the gift which the gods thrust into our laps. We must suffer, at least enough, to know pleasure when it comes to us. We can never enjoy warmth until we have suffered fierce cold, nor food until we have suffered hunger. Our soldiers who have seen active service in France have a calm sureness in their gaze because they have known deadly fear and grappled with it. They have suffered until the mere absence of suffering brings keen and satisfying pleasure. Too often the walls of the school not only shut pupils in, but shut life out. Sometimes the attempt is made to have these walls like a baleful shadow follow them out into the world and protect them from the adventures of life. The prime principle with every teacher should be "I am come that they might have life and that they might have it more abundantly," and not "I am come that I might have a living and that I might have it more abundantly." Let us have more faith in the ability of our pupils to work out their own salvation both in school and out and teach them to meet life unafraid. Only to the fearful and the unbelieving is life a menace and a danger.

Mr. Harold Molter, head teacher of the boys' school, Perkins Institute, Mass., was absent on military service and his paper was read by Director E. E. Allen, whose cultivated enunciation rendered listening a genuine pleasure.

The question discussed was "How Best to Make the Blind Efficient Citizens." There are at least six requisites—health, recreation, knowledge, vocation, appreciation, morals. In concrete terms the efficient citizen is a healthy man who has a definite vocation to follow with a sound general knowledge, a taste for reading, music and art, and finally he must possess and practise daily and hourly a sound code of ethics.

To hold a nice balance between the relative claims of the cultural and the useful subjects in the High School programme was the aim of the paper. He gave an interesting discussion of the real meaning of culture—the development or strengthening of powers, illustrating by lively examples, of which this was one:—

"I once saw my brother break down the parting wall between two rooms with strokes of a hammer. I shall never forget the lesson in persistence and evidence of the power of the mind on the body which was displayed in those five minutes. The impression was so great that from that day to this, when I have been confronted by a serious obstacle, there has unconsciously loomed up the picture of that energetic young man, and the obstacle has been surmounted. How many mathematics lessons would I have to tackle and overcome, pray, before I was cultivated enough to reach the point which I did as a result of that wall wrecking experience of five minutes' duration."

Not that he spoke slightingly of the cultural subjects, only that our conception of what is included under that heading should be widened and that these subjects should be chosen to suit the individual, not forced indiscriminately on all.

In summing up, his recommendation given "after much thought and experimentation" was as follows:—

1. Let us provide for a rich social atmosphere, where Boy and Girl Scouts, Literary and Athletic associations, plays and pageants, dancing and other social functions, play an important part, an atmosphere in which the children may

steep themselves, associate with each other, learn to know each other and measure themslves against one another. This is important. And let this atmosphere expand and include association with the seeing world.

2. Next, by all means let every eligible pupil of high school age study Latin, Greek, Mathematics if he wants to. But instead of forcing these subjects upon all pupils, let those who have the ability and the interest begin with the Latin and Mathematics. Let it be an honour, a privilege, for them to enter such classes. For such pupils these subjects will be both cultural and useful. Interest is indeed the basis for all real accomplishment.

3. Let us have a minimum course of study for all pupils, in which literature, composition, history (particularly modern history), current topics, general science, shall be required of every pupil as useful subjects, a knowledge of which is necessary for efficient citizenship.

4. If small groups display interest in any other subject, let them unite and have a class formed which shall study that subject in addition to the minimum course. So shall each pupil be cultivated through the study, instead of the study being cultivated on the pupil.

Now in our institutions for the blind, with their many departments—manual, music, tuning, physical training, and literary, the question arises: how is it possible for a pupil to enter all of these departments and accomplish definite results in the minimum of time? The answer is they cannot.

In the matter of vocational work every pupil should have the purely educational part of manual training taught in the earlier years, and during the High School course he should specialize in one vocational calling.

Mr. H. R. Chapman, head teacher Department for the Blind, California School for the Deaf and Blind, Berkeley, discussed what we ought to know about the child we teach.

He traced the gradual development of the individual child during the last few years. Speaking of the classes for "Misfit" children in California schools, and of classes for partially seeing children in other cities, and quoting with approval the words of the President of the State Normal School at San Francisco, "There are no misfit children, but there are misfit schools, misfit texts and studies, misfit dogmas and traditions of pedants and pedantry. There are misfit homes, misfit occupations and diversions. In fact, there are all kinds and conditions of misfit clothing for children, but, in nature of things, there can be no misfit children."

He concluded that we should call in the services of a physician and a psychological expert to supplement our own intimate study of the child so that we may be able to give him the best possible education, mental, moral, and physical.

Dr. Samuel P. Hayes, Director of Psychological Research, Pennsylvania Institute for the Blind, Overbrook, gave an exhaustive account of his methods of applying psychological tests to blind children. The results are more or less tentative so far, but the outcome is likely to be of some value in the teaching of the blind.

In connection with the Halifax disaster, Mr. McAloney had appointed a committee to serve with a similar committee of the American Association of

Workers for the Blind in planning possible measures of relief for those whose eyes had been injured. Director E. E. Allen, of the Perkins Institution, was called upon to give the report of this committee. It was intensely interesting to hear from one who had seen the frighful results with his own eyes.

The known cases of injury to the eye amounted to six hundred odd, chiefly women who were at home at the time and had rushed to the windows on hearing the first explosion, and had thus been caught in the "blizzard of glass" caused by the second and more tremendous one.

The pupils of the Halifax School for the Blind had been trained in expectation of possible bombing, and at the first sound had promptly marched to the basement, thus escaping injury, although eight hundred of the school's windows were smashed.

Mr. Allen gave some account of the oculists who had come in from outside cities, and added their skill and labour to those of the four resident specialists, thus saving hundreds of eyes that might otherwise irrevocably have been lost. He told also of the work of Sir Frederick Fraser and of his own and other committees in planning for the relief and education of the injured. It was reassuring to learn that the number of those practically blinded by the explosion would be less than one hundred.

Mr. Allen spoke among other things of the probability of life-saving classes being established in Halifax, and the next paper dealt with the subject fully.

Mr. R. B. Irwin is supervisor of classes for the blind in public schools, Cleveland, Ohio, and in his absence the paper was read by Mr. VanCleve. In Cleveland there are seven sight-saving classes, with the services of a visiting oculist two afternoons per week, whose duty is is to see that the defective vision of the pupils is properly conserved. These classes are essentially public school classes, the aim being to keep those with partial vision as closely as possible in touch with normal children, instead of segregating them with the totally blind, to the detriment of both. All schools for the blind find partially seeing pupils their most puzzling problem, and an actual drawback to the work of the totally blind. These sight conservation classes promise to solve the question to the satisfaction of all concerned. In them careful use is made of whatever degree of vision the child may possess. Large blackboards with large soft crayons are used, heavy soft pencils with unglazed paper, large typed books and of course the best natural and artificial light obtainable. It promises to be a splendid piece of work to rescue the doubtful class by drawing them from the ranks of those who must read and do all other things by touch, and place them among the great ranks of the more or less normal of mankind.

An interesting "Olla Podrida" was next presented by Mr. Thurman, of the Utah School for the Deaf and Blind, a composite message from several teachers there. The first was a statement which is generally acknowledged by teachers of the blind but is directly opposed to the almost universal belief, namely, that the blind, and especially those blind from birth, are less quick and accurate in their use of the other senses than the normal person. Probably the knowledge acquired through each sense is strengthened and clarified by the knowledge acquired through the other senses, and the blind lack the great awakening which the world of sight gives. For this very reason every effort should be made to stimulate and train the use of the other senses in youth.

The second was an enthusiastic account of the use and value of dramatization to little blind children. It is something they love, and this in itself is a great recommendation. It tends to make them less self-conscious, more graceful of movement, more mobile and expressive of feature. It stimulates the imagination and thus the whole brain. The stories recommended were the Robin Hood and King Arthur Tales and the Wagner Opera Stories, the latter accompanied by the playing of the motives, or, better still, by the whole music on the piano or the victrola.

Even more enthusiastic and convincing was the story of the librarian who claimed the credit of having allowed the volumes of his library during the preceding year to contract scrofula and spinal meningitis, his picturesque way of saying that they were being worn out with constant use, and the one word accessible explained all. He had introduced a Braille card index system which allowed pupils to choose books for themselves and even to do independent research work.

Superintendent S. M. Green, of the Missouri School for the Blind, St. Louis, discussed the question of "Training the Blind Pupil for Citizenship." He followed what he called the well-known trail of the development of mind, body and spirit to their highest degree, but his paper was full of practical suggestions of especial value to the young teacher. He laid emphasis on the need of teaching the blind the care of the body, so that they would know the need of exercise, the value of an erect carriage, the means to employ against simple colds and other infections, and so on. Athletics, boy scout hikes, etc., should be encouraged.

Then, in the matter of fitting him for his social environment, he should be encouraged to take part in political meetings, in red cross and war stamp rallies, in pageants, concerts and orchestral performances. He must be taught the value of an attractive personality, a well groomed body, neat attire, and courteous manners. It is cruel to send out a piano tuner who does not know how to greet the lady of the house.

Every pupil, too, must be trained to do at least one thing well enough that he can thereby earn his own livelihood, but over and above all he must be enkindled with an unconquerable determination to take his place as a man among men.

The speaker ended by giving some concrete instances of the work accomplished in his own school which are worth quoting as examples of what can be done by the blind.

Homer Davenport left us to graduate from the law school of Washington University, became County Prosecuting Attorney of his native county for two terms, and then Probate Judge, is a much-prized speaker for Liberty Bonds, Red Cross, and Y.M.C.A., was our honored guest who gave our commencement address this year. Has he not qualified as a good citizen?

Ernest Howell, a travelling salesman, worked six months for his company before they discovered his handicap, though entirely blind. He was among ten best salesmen in contest among forty-six; has taken out a claim of 320 acres in a western state and put on it a man to improve it. His brother, Ben Howell, a piano salesman and tuner, owner of a piano store in his native town, is a respected business man of the community.

Joseph Huber, acknowledged best cornet teacher in a city of eight-hundred-thousand inhabitants, who made the trip to the Panama Pacific Exposition to

play in an official band, frequent soloist at our municipal band concerts, is on our own band staff.

Edward Golterman, handler of produce for commission men, beginning this work in summers before being graduated from school, continued until he owns teams and wagons for his hauling outfits. He is on the job every day from 8 a.m. to 9 p.m., with money in the bank.

Edith Cook Scott, former printer and voice teacher, moved to a small town, has taken her place as soloist and musician in church circles; meets every week with women of the Red Cross Unit. She crocheted a small handbag which sold for $230.00 at a Red Cross Rally.

Lena Hill, taking a course in business college, is a stenographer and typist in a large insurance office, daily proving what she can do in business circles, and is happy in her work.

Margaret Wade, a grade teacher in our own school, was graduated from the Harris Teachers' Training College, post graduate of the Kroeger School of Music, is teaching a piano class in her own neighbourhood in the afternoons. Has she not proved her usefulness to the community?

Our this year's graduate, Bertha McGuire, has had a story telling hour every summer for the past five years at one of our largest playgrounds. She has gladly done this for the joy of giving a community service, as she has not been paid for it. Her dramatic talent has been so marked that she has been chosen for a leading speaking part, Poland, in our municipal pageant, with nine hundred participants, for the St. Louis Fourth of July celebration.

All of these are entirely blind.

PHYSICIAN'S REPORT

To the Hon. H. J. Cody, M.A., D.D., LL.D.,
Minister of Education for Ontario.

Sir,—I have the honour to present my annual report for the year ending October 31st, 1918.

The past year has been a heavy one in my department, partly due to the outbreak of Spanish influenza which invaded the school in October.

Mr. J. B. Wilson, Chief Engineer for some years, died during the year of an acute abdominal trouble.

In January a female pupil was operated on for acute appendicitis. Also a small boy was operated on for a troublesome inguinal hernia. Both made uneventful recoveries. These operations were performed in the Brantford General Hospital.

During the session a junior male pupil fractured his right arm above the elbow. He made a good recovery.

In October Spanish influenza broke out in the school. We had in all seventy-nine cases, including officers, of which ten were complicated by pneumonia. It is a satisfaction to report that all made good recoveries.

I cannot let this opportunity pass without expressing my appreciation of the excellent work done by our nurses during the recent outbreak. It was impossible to get outside assistance, and our own nurses, graciously and ably assisted

by some lady members of the staff, succeeded in caring for this large number of cases of seriously ill, delicate children, with the gratifying results above stated.

I want again to thank your Department for the foresight shown in appointing to the school a professional nurse. Her worth was particularly in evidence in the recent epidemic, but, in addition, throughout the year she gives daily many little attentions which add greatly to the comfort and well being of the pupils.

During the past month it was necessary for Miss M. Cronk to go to her home. She suffered from a cerebral hemorrhage a few weeks ago. She has been an officer for years at the school and will be missed by many old friends.

I have the honour to be,

Sir,

Your obedient servant,

J. A. Marquis.

Brantford, December 1st, 1918.

REPORT ON MUSIC

To the Hon. H. J. Cody, M.A., D.D., LL.D.,
Minister of Education for Ontario.

Sir,—I have the honour to submit my Report on the Music Department of the Ontario School for the Blind, Brantford.

The examinations in connection with this detailed Report were conducted on May 30th and 31st, 1918, and the subjects included were Piano-playing, Violin-playing, Voice-production, and Solo-singing, Choral class work and the Theory of Music.

Twenty-nine pupils were presented for examination in Piano-playing, nine in singing, three in Violin, and twenty-one in the Theoretical subjects—making a total of sixty-two.

Piano.—Of the beginners who constitute the Preparatory or "Progress" class, five were marked "fair," two "very fair," and one "good."

In Grade No. I, five "passed," and one gained Honours (i.e., over 70 marks).

In Grade No. II, three passed, two reached the Honour standard and one failed.

In Grade No. III, one passed.

In Grade IV, two passed.

In Grade No. V, one passed and one obtained honours.

In Grade No. VI, two gained honours.

In the graduating class two passed. These pupils are the first to gain the Licentiate Diploma of the O.S.B., and both were prepared by Miss Harrington.

Amongst the students of this class there are a number who possess more than average musical talent, and the majority will develop into excellent performers of real artistic merit, provided they receive careful technical teaching combined with intellectual guidance.

On the whole Miss Harrington and Miss Smythe are to be congratulated on the results obtained during the past year.

Voice-culture and Solo-singing.—Nine pupils were examined in these subjects.

In the Rudimentary or Progress class, two were "good" and one "fair."

In Grade No. I, three passed.

In Grade No. II, one passed.

In Grade IV, one passed.

In the graduating class (Licentiateship) the one candidate who entered showed marked improvement in her work since last year, and yet did not reach a sufficiently high standard either artistically or technically to pass the somewhat severe test.

Considerable improvement was shown in the matter of voice-production in all grades of this class, which is under the direction of Mr. W. Norman Andrews.

Violin-playing.—In this branch of study three candidates were examined.

One in the "progress" stage was quite promising.

In Grade No. III, one passed.

In Grade No. IV, one gained Honours.

Miss Jones, who has charge of this class, is doing capital work, and the results are eminently satisfactory.

Rudiments, Grade No. I.—In a class of ten pupils two just failed, one passed, two gained honours, and five first-class honours. Such a result reflects much credit on Miss Jones.

Rudiments, Grade No. II.—Three pupils were orally examined in a part only of the work of this grade. The results were unsatisfactory.

History of Music.—Two pupils finished their course in Grade No. 3, one passed and the other gained honours.

Improvisation.—The two students who were examined in extemporization or improvisation displayed very little knowledge of the subject.

In view of the fact that improvisation is of the greatest importance to students in their intellectual development, definite instruction should be given to all pupils in the higher grades of both Organ and Piano-playing. In this connection the study of Counterpoint is almost a necessity. Unfortunately, during the past year this subject has been altogether omitted, although I have on several occasions recommended that it should be permanently taught.

Harmony.—Intermediate standard, being the equivalent of the University of Toronto local examinations.

Five pupils entered, and all reached the first-class honour mark, their teacher being Mr. W. Norman Andrews, the Musical Director.

I note that some of these pupils were successful in examinations of a *more* advanced character *several* years ago! Two of these students were quite clever and they are capable of doing more important theoretical work if the opportunity is given them.

The serious study of Counterpoint, Musical History and Form should be taken up and should occupy a *permanent* place in the musical life of the school.

It is essential to all students of music, and particularly in the case of the Blind, that the *intellectual* side of their natures should receive careful attention, to counterbalance, as it were, their strongly emotional tendencies.

The study of Counterpoint, and indeed the Theoretical side of music generally, is of the greatest value in this connection.

Tuning.—The Tuning school is making good progress under the able guidance of Mr. Ansell.

From personal observation I can safely state that the pupils are now receiving a thorough grounding in Practical Tuning, based on scientific knowledge.

It is a pleasure to note the efficiency of this department.

I am informed that during the past year three young men from the O.S.B. have obtained positions as tuners with a large Toronto firm of piano manufacturers, and their work has been so satisfactory that they have already received two advances in their wages, thus demonstrating the practical utility of the department.

Choral Class.—The Choral Class (Conductor, Mr. W. Norman Andrews) is a well-balanced body of excellent voices. They sang two unaccompanied Part Songs with considerable expression and good tone quality.

An excellent three-manual organ has just been installed in the large hall of the school, which should prove a valuable addition to the working equipment.

In concluding my remarks, I should like to record my thanks to the able and courteous Principal (Mr. W. B. Race) for facilitating the work in connection with my duties as examiner.

I have the honour to be,

Sir,

Yours obediently.

Albert Ham,
Mus. Doc., F.R.C.O.

OCULIST'S REPORT

To the Hon. H. J. Cody, M.A., D.D., LL.D.,
Minister of Education for Ontario.

Sir,—I have the honour to report the results of the examination of the pupils' eyes for the year 1918.

—	Male	Female	Total
Number of pupils examined	58	35	93
Examined for first time	13	4	17
Re-examined after an absence of a year or more	3	3	6
Examined last year	42	28	70

This tabulation does not include all of the pupils enrolled at the school, as the Superintendent thought it unnecessary to trouble those who have no eyes and of whom the records are complete.

In the following classification of diseases only those examined this year are included:—

Disease	Male	Female	Total	Percentage
Ophthalmia Neonatorum	11	11	22	23.6
Optic Atrophy	11	7	18	19.3
Cataract, Congenital and Lamellar	6	8	14	15.1
Injury to one eye followed by Sympathetic Ophthalmia in the other	7	1	8	8.6
Injury to both eyes	2	.....	2	2.2
Injury by gunshot wounds, powder and dynamite explosions	4	1	5	5.4
Congenital Coloboma of Iris and Choroid	3	.....	3	3.2
Congenital dislocation of lens	1	.....	1	1
Retinitis Pigmentosa	1	1	2	2.2
Interstitial Keratitis	1	2	3	3.2
Chorioiditis	1	1	2	2.2
Aniridia	.....	2	2	2.2
Uveitis	2	.....	2	2.2
Buphthalmos	1	.....	1	1
Growth, eyes enucleated, probably Glioma	1	.....	1	1
Measles	4	.....	4	4.3
Myopia	2	1	3	3.2

Of the pupils examined on previous occasions and again this year there is little change to record. The usual slight fluctuations in sight were found, these depend on the nature of the disease or the condition of the general health. But the improved appearance of a number of the pupils was remarkable, due to the replacement of disfiguring blind eyes with artificial eyes. This change is so much appreciated by the pupils themselves that I have had to refuse the enucleate some eyes, which, while very objectionable to look at, were yet of some service, enabling their possessors to avoid large objects and to keep to the sidewalk.

The class entering the school for the first time is always most interesting from a study of the conditions causing blindness: Noticing the different kinds of congenital conditions, sad but unavoidable, or those diseases which may attack an eye and cause blindness at any time of life—equally sad and unavoidable; while consideration of the large class of so-called preventable blindness is apt to arouse quite other emotions, for instance, Ophthalmia Neonatorum, a lifetime handicap for some one's folly or some of the accidents revealing gross carelessness, sometimes by the victim, sometimes by the carelessness of other persons. And the varying ages of onset, compared with their ages on entering the school, makes one speculate as to why they were kept so long from the opportunity to get the best possible education under the circumstances.

In this year's new class of seventeen there are six with congenital defects, four blind from unavoidable diseases coming on at the ages varying from one year to twenty-one: two from Ophthalmia Neonatorum and five from injuries. Of these, two certainly, probably three were injured in one eye and lost the other from Sympathetic Ophthalmia, which in almost every case might have been avoided by sacrificing the offending eye.

There is no question as to the eligibility to the school of all of these, as the sight of most of them is very bad, and it certainly would be very unwise for any of them to try to get their education in a public school.

Classifying the sight of all examined we find the following:—

—	Males	Females	Total
Without perception of light in either eye	8	6	14
Perception of light only in one eye	16	7	23
Perception of light in both eyes	6	3	9
Limited objective vision in both eyes	11	14	25
Limited objective vision in one eye	17	5	22
			93

A few pupils required attention during the year, and while in two or three cases the feeble sight they possessed, for a time seemed menaced, in no case did it suffer finally, all having been restored to their former condition.

At the time of writing the influenza has left no bad effects as sequelæ on the eyes of the pupils, and although some of their ears were infected in a mild degree, all recovered without serious complications.

Respectfully submitted,

B. C. Bell.

Brantford, Dec. 30th, 1918.

LITERARY EXAMINER'S REPORT

To the Hon. H. J. Cody, M.A., D.D., LL.D.,
Minister of Education for Ontario.

Sir,—I have the honour to present herewith my report on the literary work of the Ontario School for the Blind for the academic year ending June, 1918.

Staff

Since making my last report Major James returned to his duties at the Department of Education and Mr. W. B. Race, B.A., has been appointed to the principalship of the school. Mr. Race is a practical collegiate teacher of several years' experience and possessed of a kindly and sympathetic disposition.

The late Mr. Wickens, who served faithfully and well, as vice-principal for many years has been succeeded by a public school man of considerable experience and ability, in the person of Mr. G. A. Cole.

In other respects the staff is essentially the same as at the last report. All possess the proper normal certificates but one.

Courses of Study and Organization

As a result of the careful study and thonght given to the work of the school by Mr. Race and Mr. Cole, the pupils are graded very satisfactorily althongh a further improvement in this respect is promised for next year. Classes corres-

ponding to Forms 1, 2, 3, and 4 of the public schools are in operation and an entrance class which I carefully examined in all the subjects of entrance work except art, showed considerable proficiency in the work of that grade. Junior high school work will be taken up next year.

Apart from the regular course of study as laid down for the public schools the pupils are instructed in bible study, knitting, telegraphy, typewriting, basket making, broom making and shoemaking.

Some of the older pupils of former years did not return this year and as only comparatively few new pupils are in attendance the school is somewhat smaller. This permits of fewer pupils per teacher and hence more effective teaching.

Work of the Pupils

I examined the several classes in reading, writing (point and script), arithmetic, literature, spelling, history, grammar, hygiene, composition, and geography.

In arithmetic all the classes have made considerable progress, owing very largely to the introduction of a new slate which enables them to work more rapidly than in former years. It will be possible to increase the work covered by each form next year.

The pupils had a good idea of the several selections from the reader upon which they were questioned. A wider range of reading matter would be of great value to the class. More text-books would facilitate the progress of the pupils and simplify the work of the teachers.

Nearly all the pupils spell well. Those who did not spell well were mostly confined to the primary and first book classes. Some had not been long enough at school to be familiar with the point print and will doubtless improve in spelling as they become more proficient in reading.

In geography there was more improvement than in any other subject. A wider course is being studied than in former years and the subject is being presented in a better way to the pupils.

The same interest and proficiency were observed in history, grammar, and composition as in former years.

Notes

1. The attainment of knowledge by the pupils is made subservient to their happiness. Every effort is made by the principal to make the school life of the pupils happy.

2. I would suggest that greater attention be given to the physical training of the pupils.

3. The pupils deserve great credit for the work done by them for the relief of our soldiers at the front.

E. E. C. Kilmer,

Inspector, Brantford Public Schools.

Brantford, June 10th, 1918.

REPORT OF INDUSTRIAL DEPARTMENT FOR SESSION ENDING JUNE, 1918

W. B. Race, Esq., B.A.,
Superintendent.

Dear Sir,—I have the honour to report that during the session twelve boys were given instruction in chair-caning, ten in broom-making, three in furniture-making, and nine were given some instruction in shoe-repairing.

During the session of 1916 and 1917, it was decided by Principal C. W. James to add to the industries already being taught, the trade of shoe-repairing; with this end in view an equipment was purchased and Mr. C. E. Tooth, a graduate of the Manchester (England) School for the Blind, was provisionally engaged as instructor.

The work of this department, however, proved so unsatisfactory that at my recommendation it was decided to close it.

While shoemaking continues to be one of the leading occupations of the blind in England, I can see no immediate prospect of its becoming a success in Canada, due to the different conditions prevailing here, and also to the introduction of electrical machinery for the repairing of shoes, which is rapidly supplanting the hand cobbler in practically every town and city of Canada. This machinery is of such a nature that in my judgment it is impossible for a blind man to operate it.

Chair-caning.—This work continues to be most popular with the pupils, and although it can not be considered as a vocation, as a side line it is very profitable to the blind worker. It is also an excellent medium in developing the sense of touch.

Furniture-making.—The making of reed, fibre and rush furniture is one of the very best forms of manual training for the blind, giving scope to the artistic temperament of the pupil and at the same time developing his mechanical instincts. The work is very attractive and the finished articles find a ready sale at good prices.

Broom-making as a vocation for the blind needs no recommendation, it having been taught for many years in all the schools of the United States, where there are also many workshops which give employment to large numbers of blind women and men; it also affords an excellent opening for an ambitious blind man to establish a business of his own, as the amount of capital needed to start such a business is very small and there is always a ready market for his wares, brooms being a necessity in every home, workshop and factory.

One of our pupils, of Bruce, Alta., graduated this year, and, being given an outfit by the Saskatchewan Government, has established such a business, and is, I believe, doing well.

Employment was also found for another pupil in the broom shop of the Ottawa Association for the Blind, where he is now earning a good wage.

The work in the Industrial Department has been considerably handicapped of late through the scarcity of the raw materials entering into our work, due to war conditions, but the return to normal market conditions will, I trust, enable the work to proceed without hindrance.

Respectfully submitted,

Walter B. Donkin,
Head of Department.

Ontario School for the Blind

STATISTICS FOR THE YEAR ENDING 31st OCTOBER, 1918

I.—Attendance

	Male	Female	Total
Attendance for portion of year ending 30th September, 1872	20	14	34
" for year ending 30th September, 1873	44	24	68
" " " 1874	66	46	112
" " " 1875	89	50	139
" " " 1876	84	64	148
" " " 1877	76	72	148
" " " 1878	91	84	175
" " " 1879	100	100	200
" " " 1880	105	93	198
" " " 1881	103	98	201
" " " 1882	94	73	167
" " " 1883	88	72	160
" " " 1884	71	69	140
" " " 1885	86	74	160
" " " 1886	93	71	164
" " " 1887	93	62	155
" " " 1888	94	62	156
" " " 1889	99	68	167
" " " 1890	95	69	164
" " " 1891	91	67	158
" " " 1892	85	70	155
" " " 1893	90	64	154
" " " 1894	84	66	150
" " " 1895	82	68	150
" " " 1896	72	69	141
" " " 1897	76	73	149
" " " 1898	74	73	147
" " " 1899	77	71	148
" " " 1900	77	67	144
" " " 1901	72	66	138
" " " 1902	68	70	138
" " " 1903	67	64	131
" " " 1904	68	66	134
" " " 1905	67	74	141
" " " 1906	71	76	147
" " " 1907	72	72	144
" " " 1908	71	68	139
" " " 1909	72	70	142
" " 31st October, 1910	77	67	144
" " " 1911	76	61	137
" " " 1912	69	55	124
" " " 1913	62	62	124
" " " 1914	65	59	124
" " " 1915	70	62	132
" " " 1916	82	61	143
" " " 1917	74	53	127
" " " 1918	75	51	126

II.—Age of Pupils

	No.		No.
Five years	0	Seventeen years	7
Six "	2	Eighteen "	9
Seven "	2	Nineteen "	5
Eight "	4	Twenty "	3
Nine "	4	Twenty-one "	3
Ten "	10	Twenty-two "	8
Eleven "	6	Twenty-three "	2
Twelve "	12	Twenty-four "	3
Thirteen "	4	Twenty-five "	1
Fourteen "	14	Over twenty-five years	6
Fifteen "	11		
Sixteen "	10	Total	126

III.—Nationality

—	No.	—	No.
American	1	Indian	2
Austrian	2	Irish	9
Canadian	54	Polish	3
English	33	Scotch	11
Finlander	1		
French	5	Total	126
German	1		

IV.—Denomination of Parents

—	No.	—	No.
Baptist	5	Presbyterian	21
Christian Science	2	Roman Catholic	19
Disciples	1	Hebrew	2
Episcopalian	32		
Lutheran	3	Total	126
Methodist	41		

V.—Occupation of Parents

—	No.	—	No.
Agent	1	Millers	2
Baker	1	Miner	1
Barber	1	Painter	1
Bartender	1	Pedlar	1
Blacksmiths	2	Police Magistrate	1
Book-keepers	2	Policeman	1
Bricklayer	1	Railway Employees	2
Cabinet-makers	2	Salesman	1
Caretaker	1	Sawyer	1
Carpenters	6	Sheet-Metal Worker	1
Clerk	1	Shoemakers	2
Clergyman	1	Soldiers	5
Dairyman	1	Steward	1
Engineer	1	Stoker	1
Farmers	22	Stone Mason	1
Fireman	1	Stove Mounter	1
Fisherman	1	Tanner	1
Gardeners	3	Tailor	1
Horseman	1	Trader	1
Hunter	1	Traveller	1
Janitor	1	Teamster	1
Jeweller	1	Tuner	1
Journalist	1	Unknown	9
Labourers	29		
Machinists	2	Total	126
Merchants	3		

VI.—Cities and Counties from which pupils were received during the official year ending 31st October, 1918

County or City	Male	Female	Total	County or City	Male	Female	Total
County of Addington	1	....	1	County of Ontario	1	1	2
Alberta	2	1	3	City of Ottawa	2	1	3
District of Algoma	....	1	1	County of Oxford	1	....	1
Countyof Brant	....	1	1	" Peel	2	1	3
City of Brantford	....	3	3	" Perth	....	1	1
City of Belleville	....	1	1	District of Rainy River	....	1	1
County of Bruce	3	....	3	County of Renfrew	....	1	1
" Essex	....	2	2	" Russell	....	1	1
" Glengarry	....	2	2	City of St. Catharines	....	1	1
" Grey	....	1	1	" St. Thomas	1	....	1
" Grenville	1	....	1	County of Simcoe	4	1	5
City of Hamilton	2	2	4	City of Toronto	18	8	26
County of Hastings	1	....	1	County of Victoria	1	....	1
" Huron	3	2	5	" Waterloo	1	....	1
" Haldimand	2	....	2	" Welland	....	1	1
" Kent	....	4	4	" Wellington	1	....	1
City of Kingston	1	....	1	" Wentworth	1	....	1
County of Lambton	....	1	1	" York	2	1	3
" Leeds	1	1	2	Saskatchewan	6	....	6
" Lincoln	2	....	2	Manitoba	6	3	9
City of London	1	1	2	British Columbia	3	....	3
District of Muskoka	1	1	2				
District of Nipissing	5	4	9	Total	76	50	126

VII.—Cities and Counties from which pupils were received from the opening of the School until 31st October, 1918

County or City	Male	Female	Total	County or City	Male	Female	Total
County of Addington	1	....	1	County of Haliburton	1	....	1
District of Algoma	10	6	16	" Halton	7	3	10
City of Belleville	4	1	5	City of Hamilton	24	23	47
County of Brant	10	8	18	County of Hastings	6	6	12
City of Brantford	17	14	31	" Huron	15	13	28
County of Bruce	10	12	22	City of Kingston	8	4	12
" Carleton	2	2	4	County of Kent	11	8	19
" Dufferin	2	1	3	" Lambton	20	8	28
" Dundas	3	3	6	" Leeds	15	5	20
" Durham	4	4	8	" Lanark	4	4	8
" Elgin	7	6	13	" Lennox	4	1	5
" Essex	15	22	37	" Lincoln	3	3	6
" Frontenac	5	3	8	City of London	13	11	24
" Glengarry	8	2	10	County of Middlesex	10	13	23
" Grenville	3	2	5	District of Muskoka	3	3	6
" Grey	11	12	23	County of Norfolk	11	10	21
City of Guelph	4	4	8	City of Niagara Falls	....	1	1
County of Haldimand	6	5	11	District of Nipissing	10	8	18

VII.—Cities and Counties from which pupils were received from the opening of the School until 31st October, 1918—Concluded

County or City	Male	Female	Total
County of Northumberland	6	9	15
" Ontario	8	13	21
City of Ottawa	24	7	31
County of Oxford	8	13	21
District of Parry Sound	3	....	3
County of Peel	4	2	6
" Perth	5	11	16
" Peterborough	13	5	18
" Prince Edward	7	2	9
" Prescott	4	....	4
" Renfrew	8	6	14
" Russell	5	3	8
District of Rainy River	1	1	2
City of St. Catharines	3	2	5
" St. Thomas	4	2	6
" Stratford	3	1	4
County of Simcoe	13	11	24
County of Stormont	5	2	7
City of Toronto	85	56	141
County of Victoria	9	2	11
" Waterloo	13	6	19
" Welland	9	6	15
" Wellington	11	8	19
" Wentworth	10	11	21
" York	21	17	38
Province of Quebec	5	1	6
Saskatchewan	9	6	15
British Columbia	9	....	9
Manitoba	11	8	19
Alberta	6	4	10
United States	1	....	1
	610	446	1,056

VIII.—Cities and Counties from which pupils were received who were in residence on 31st October, 1918

County or City	Male	Female	Total
County of Addington	1	....	1
District of Algoma	....	1	1
City of Belleville	....	1	1
City of Brantford	....	3	3
County of Bruce	1	....	1
" Essex	....	2	2
" Glengarry	....	2	2
" Grenville	1	....	1
City of Hamilton	1	2	3
County of Haldimand	2	....	2
" Hastings	1	....	1
" Huron	4	1	5
" Kent	....	2	2
City of Kingston	1	....	1
County of Leeds	1	1	2
City of London	1	1	2
District of Muskoka	....	1	1
" Nipissing	7	2	9
County of Ontario	1	....	1
City of Ottawa	2	1	3
County of Oxford	....	1	1
County of Peel	2	1	3
" Perth	....	1	1
Rainy River District	....	1	1
County of Russell	....	1	1
City of Sarnia	....	1	1
" St. Thomas	1	....	1
County of Simcoe	3	....	3
City of Toronto	11	6	17
County of Victoria	1	....	1
" Welland	....	1	1
" Wellington	1	....	1
" Wentworth	....	1	1
" Waterloo	1	....	1
" York	....	1	1
Manitoba	6	3	9
Saskatchewan	6	....	6
Alberta	1	1	2
British Columbia	2	....	2
Totals	59	39	98

MAINTENANCE EXPENDITURE FOR THE YEAR ENDING OCTOBER 31st, 1918, COMPARED WITH THE PREVIOUS YEAR

Item No.	Service	Total Expenditure Year ending October 31st, 1917	Total Expenditure Year ending October 31st, 1918
		$ c.	$ c.
1	Medicine	274 79	310 62
2	Meat, Fish and Fowl	3,643 85	3,358 40
3	Flour, Bread and Biscuits	1,175 53	1,130 75
4	Butter and Lard	2,360 09	1,832 51
5	General Groceries	2,702 41	2,193 42
6	Fruit and Vegetables	1,107 16	316 74
7	Bedding and Clothing	458 00	385 45
8	Heat, Light and Power	13,024 23	10,467 19
9	Laundry	448 59	482 84
10	Furniture and Furnishings	1,383 94	1,692 98
11	Farm and Garden	1,190 79	1,343 29
12	Repairs and Alterations	1,664 32	1,792 77
13	Advertising and Printing	856 95	673 64
14	Books and Apparatus	1,408 33	539 40
15	Miscellaneous	2,829 92	1,909 88
16	Pupils' Sittings in Church	200 00	200 00
17	Rent of Hydrants	160 00	160 00
18	Water Supply	481 18	566 07
19	Salaries and Wages	31,140 03	33,954 39
20	Broom-making	889 62	.....
21	Shoe-making	89 86	.....
22	Repairs to Pianos and Organs	139 89	232 70
23	Hardware, Paint, etc	599 91	466 91
24	Workshop—Willow Department	480 19	466 95
25	Engineer's Supplies	349 87	285 66
26	Models and Tools	193 10	99 56
27	Musical Instruments	1,208 25	355 00
28	Special Warrant (Horses)	492 00	.....
29	Literary, Music and Eye Ex	.....	509 00
30	Special Items—		
31	Special Warrant	.....	1,126 55
	Direct Payments	.....	178 92
		70,952 80	67,031 59

Our Maintenance Expenditure for the year ending October 31st, 1918..... $67,031 59
We returned to the Department in the way of Casual Revenue derived from fees from western pupils, etc., the sum of..... 2,723 35

The actual cost of maintenance was therefore $64,308 24
At an average attendance of 102 our per capita cost per year was..... $630 47

Certified correct,

G. H. RYERSON,
Bursar

October 31st, 1918

THE HONOURABLE HENRY J. CODY, D.D., LL.D., M.P.P.
Minister of Education for the Province of Ontario.
Hon. Pres. Ontario Archaeological Association.

THIRTIETH ANNUAL

Archæological Report

1918

By DR. R. B. ORR

BEING PART OF

Appendix to the
Report of the Minister of Education,
Ontario

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO

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1918

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TORONTO.

PRESENTATION

To the Honourable H. J. Cody, D.D., LL.D., M.P.P.,

Minister of Education, Ontario.

Sir,—I have the honour to submit herewith the thirtieth Annual Report of the Ontario Provincial Museum. Permit me to express my appreciation of the aid received from your department in the work under my charge.

I have the honour to be, very respectfully,

Your obedient servant,

Rowland B. Orr.

Toronto, Dec. 31st, 1918.

ERRATUM

On page 75, line 7 should read: "cause death, illness, or trouble to those who offend them, through various agents,"

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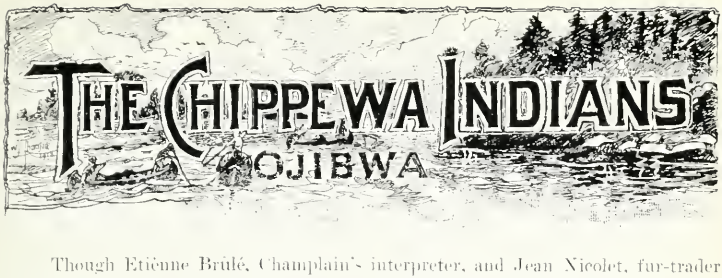
The Indian tribes found in possession of the country now embraced within the limits of New England and the Middle States have left few monuments to attest their former presence. The fragile structures which they erected for protection and defence have long ago crumbled to the earth; and the sites of their ancient towns and villages are indicated only by the ashes of their long-extinguished fires, and by the few rude relics which the plough of the invader exposes to his curious gaze. Their cemeteries, marked in very rare instances by enduring monuments, are now undistinguishable, except where the hand of modern improvement encroaches upon the sanctity of the grave. The forest-trees, upon the smooth bark of which the Indian hunter commemorated his exploits in war, or success in the chase —the first rude efforts towards a written language—have withered in the lapse of time, or fallen beneath the inexorable axe. The rock upon which the same primitive historian laboriously wrought out his rude, but to him significant, pictures, alone resists the corrosion of years. Perhaps no people equally numerous have passed away without leaving more decided memorials of their former existence. Excepting the significant names of their sonorous language, which still attach to our mountains, lakes, and streams, little remains to recall the memory of the departed race.

"Aboriginal Monuments of the State of New York," E. G. Squier.



Though Etiènne Brûlé, Champlain's interpreter, and Jean Nicolet, fur-trader and explorer, may have been the first white men to have visited the ancient home of the Chippewas, authentic documents conclusively prove that, as early as 1641, two members of that wonderful body of men, who evangelized the Hurons, made the voyage from Penetanguishene to the south eastern shore of Lake Superior, and met the Chippewas on their own hunting grounds. Though the distance in a straight line is but 280 miles, the canoe of the priests must have travelled and zigzagged 800 miles, for then, as now, a bark shell must hug the land and 'ware the open sea.

As they were probably the first Europeans to have stood on the shore of Lake Superior and addressed a warrior band of the formidable Chippewas, they are entitled to meritorious prominence in an article dealing with the vanishing tribe.

Charles Raymbault, S.J.

Was born at Rouen, April, 1602, and entered the Jesuit novitiate in 1621. After his ordination, in 1635, he was appointed procurator for the missions of Canada. He sailed for Quebec in 1637, left in September, 1640, for the Huron mission, and set out, early in the winter of the same year, with Father Claude Pijart, for the Nipissing hunting grounds in the forests around the outlets of the French River.

This attempt to found a mission among the restless and wandering bands of Algonquins was far and away more trying, hazardous, and accompanied by more perils than any of the missions to the sedentary tribes of Hurons, Petuns, or Neutrals. Under the broiling heat of summer, intensified by swarms of black-flies, midges, and mosquitoes, or the intense cold of winter, the missionaries were constrained to live the savage life, follow the bands through rivers, lakes, and swamps, carry their own canoe and baggage, pass half-sleepless nights on the bare earth or in the smoke and obscene vulgarity of the temporary cabins; endure as best they might the want of food; move at all times in the shadow of death and suffer a painful martyrdom of expectation, many times more excruciating than the martyrdom unto blood.*

With Fathers Lalemant and Pijart, Raymbault assisted at the *fête des morts* (feast of the dead) celebrated by the Nipissings in the summer of 1641, when the Sauteurs (Chippewas) invited the missionaries to visit them. He and Father Jogues were commissioned to respond to the invitation of the Sauteurs, and the two left Penetanguishene Bay early in September on their long voyage. They were

* "To habitually live with these savages one must trust altogether to the providence of God; for though some among them profess friendship for us, any one of them may murder us if he wishes our death, without fear of punishment from any one in this world."—Relation 1648.

accompanied by an escort of Hurons, and when they entered the river uniting Lakes Superior and Huron they looked back upon seventeen days of incessant paddling. Accustomed as the missionaries had been to the waters of the St. Lawrence, the Ottawa and the Georgian Bay, to the solitude and supreme silence of the wilderness, this water voyage was the longest and most memorable they had hitherto entered upon. For seventeen days they skirted the shores of the Great Manitoulin, passed by islands and islets robed from summit to water in a wealth of forest vegetation, and, after an uneventful but picturesque voyage, the painted Hurons and black-robed priests canoed up the St. Mary's River, and, expected but unannounced, entered the village of the Sauteurs.

Contrary to the statements of many of our Canadian writers, the priests did not enter upon this perilous voyage to open a mission among the Chippewas of the far west.

The expedition of the valiant missionaries was primarily a voyage of investigation and exploration, begun with the hope of obtaining valuable information of distant tribes and preparing the ground for planting, in time, a permanent mission among the Chippewas. The Governor of New France and the officials of Quebec were at this time deeply concerned with a problem which was not solved before the opening of the nineteenth century. They believed that between the lakes already explored and the Pacific Ocean there was a navigable route. Though the Jesuits, as we learn from Vimont's Relation of 1642, were fairly familiar with the main features of the geographic system of the Great Lakes' regions, still, like the civil and military officials at Quebec, they knew nothing of the country west and north-west of Lake Superior. The problem of the mysterious south sea was unsolved. They hoped that the voyage of the two priests might aid in solving the intricate problem and in opening a way overland to the great ocean that separated Cathay and Japan from America.

A day or two after the missionaries had entered the village of the Sauteurs, the Chippewas, numbering about two thousand, assembled to welcome them.* They harangued them in Algonquin, which the missionaries understood and fluently spoke, offered them gifts of furs and *wampum* and entertained them with feasts. Jogues and Raymbault, conforming to the customs of Indian etiquette, thanked them for their gifts and hospitality, presented the chiefs with hatchets and knives, and promised that "Blackrobes" would, before long, come and live among them.

The Chippewas informed the priests that beyond the great lake (Lake Superior) were the hunting lands of the *Nadouessis* (the Sioux), a warlike people, speaking a language unlike any spoken by the tribes of the east.†

The Sauteurs also told them of many other sedentary tribes with which they traded (1642 Rel.). Some time after his return to Huronia, Father Raymbault left to visit the Nipissings, but was driven by stress of weather to turn back. Arriv-

* The tribe or band living in this village called themselves *Pohouitingouach* (Relation 1642) and were known to the French as *Sauteurs* because their village was beside the falls or cataracts. Perrot in his Memoire, p. 193, says: "The Sauteurs in our time call themselves *Odgibowcke*, but the English call them Chippewais. These Algonquin people have now nearly all left their ancient home of Sault Ste. Marie. They include to-day most of the savages roaming the vast western possessions of Great Britain. They are continually at war with the Sioux, their neighbours to the south, are great buffalo hunters, and very often make friendly visits to the Bois-Brûles (Chippeway half-breeds) of the Red River."

† These were the sedentary or eastern Sioux whose names are given in the early Relations of the Jesuits as *Nodouessis*, *Nadoussiouek* and *Nodouessioux*. They occupied both sides of the upper Mississippi and ought not to be confounded with the Sioux who dwelt among the prairies of the far west, north of the Missouri river.

ing at St. Mary's on the Wye, his health broke down, and he was obliged to leave for Quebec for rest and treatment. Jogues accompanied the brave man to Quebec, and "there," writes Bancroft, "this disinterested man, who burnt with the zeal of carrying the gospel across a continent among all the barbarous people of the New World, even as far as the ocean which separates America from China, expired." *

When he died, October 22, 1642, he was only in his forty-first year. They buried him in the tomb where a short time before was deposited the body of the illustrious Champlain. He was the first of the early missionaries that died in Quebec and one of the firmest supporters of the Algonquin mission.

Isaac Jogues, S.J.

This illustrious missionary, "one of the purest examples of Roman Catholic virtue which this western continent has seen," was born at Orleans, France, January 10th, 1607. He was given, when baptized, the old Hebrew name of Isaac.†

At an early age he entered the Jesuit Novitiate, Paris, where he completed his studies and received the rite of ordination to the priesthood. He was twenty-nine years old when he accompanied Montmagny, successor to Champlain, when the Governor sailed for Canada. After a stormy and unpleasant voyage of seven weeks, the ship arrived at Quebec, October 2, 1636. After a few weeks stay at Quebec he sailed with a Huron flotilla for Huronia, where he superintended the erection of the Jesuit buildings of St. Mary's on the Wye River, and began the study of the Huron language.‡. After the completion of the structures Jogues and Father Garnier set out on a mission to the Tobacco or Petun Indians, among whom the two priests almost perished from cold and hunger.

Returning to St. Mary's, Jogues accepted an invitation from the Chippewas to visit their town, pitched on a river flowing from Lake Superior into Lake Huron. Taking with him Father Raymbault and some expert Huron canoe men, he left Penetanguishene Bay, September 17, 1641, and, after weeks of paddling, they entered a river and reached the Chippewa town at the foot of a fall of water. To the river he gave the name St. Mary and the cataract he called "The Falls of St. Mary," names which they retain to-day. ❧

---

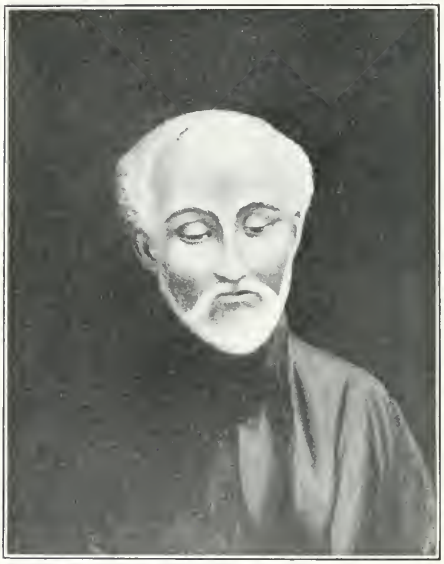
* "History of the United States," Vol. IV, Chap. XX.

† Many French Catholic families gave Old Testament names to their children, influenced probably in their choice by the example of their Protestant neighbours, who, to emphasize their opposition to Rome, selected for their children such names as Samuel, Joshua, Peleg, Shadrach and David. The name Samuel led the historian, Kingsford, into the singular mistake of assuming that Champlain was a Calvinist.

‡ The Jesuits at one time intended to build in each of the larger Huron towns a separate house for their missionaries, but this idea they abandoned for a central home near the present town of Midland. The foundations of this historic building may be seen to-day on the right bank of the River Wye near where it flows from Mud Lake into Gloucester Bay.

❧ The Rev. T. J. Campbell, S.J., in his "Life of Isaac Jogues, S.J.," says: "It is a distinction worth noting that they (Jogues and Raymbault) were the first white men to stand on the shores of Lake Superior." But C. W. Butterfield, in his "History of the Discovery of the Northwest by John Nicolet in 1634," writes: "Entering, finally, St. Mary's strait, his (Nicolet's) canoes were urged forward for a number of miles, until the Falls—Sault de Sainte Marie—were reached."

However, Sagard's narrative and Champlain's map of 1632, showing a copper outcropping and St. Mary's Falls (Sault de Gaston) would lead us to infer that Etienne Brûlé—Champlain's interpreter, and his companion, Grenoble, were the first white men to look out upon the waters of Lake Superior. At any rate, there is positive proof supported by historic documents in favour of the visit of the missionaries, which proof and documents are wanting to sustain a plea on behalf of either Brûlé or Nicolet.



Isaac Jogues, S.J.

On the second day after arriving at the Indian town, Jogues met and addressed nearly two thousand Chippewas, promising to return if possible and live with them.

Returning to Huronia, Father Raymbault, worn out from the hardships of his missionary labours, broke down and was ordered to Quebec. Jogues accompanied him and was present when the faithful missionary died. Returning with supplies for the Huron mission, Father Jogues, with his companion, René Goupil—a man of exceptional courage and endurance—was taken prisoner by an Iroquois war party (August 14, 1642), and brought to Ossernenon, the Mohawk chief town, built on the north bank of the Mohawk River. On the way to Ossernenon he was mutilated, brutally tortured, and subjected to humiliating indignities. After a slavery of thirteen months he effected his escape, and with the assistance of the Dutch Commandant at Fort Orange, reached Manhattan (New York).

Here he was received with great kindness and sympathy by Governor Kieft and by the famous Calvinist minister, Dominie Megapolensis, who entertained him in his own home for many weeks till he regained his health and strength.

From the harbour of Manhattan, Isaac Jogues sailed for England and finally landed in France, where, lame and half starved, he found his way, after walking for eight days, to the college of Rennes. Here he was received with open arms and treated with great kindness. In June, 1644, the brave missionary again landed in Quebec, and, at the request of the Governor, started on an embassy of peace to the same Mohawks, who two years before had mutilated and almost murdered him. Returning to Quebec he made his report to Governor Montmagny and, resigning his commission, he asked to be permitted to go back to the Mohawks as a missionary priest. His petition was granted and he at once left for the Iroquois territory. Arriving at Lake Andiatarocte, the present Lake George, he was made prisoner by a band of Mohawk warriors who, after cruelly torturing him, dragged him to Ossernenon, where they murdered him, October 18, 1646. "Thus," writes Parkman, "died Isaac Jogues, one of the purest examples of Roman Catholic virtue which this western continent has seen."

THE CHIPPEWAS.

Brief History of the Tribe.

When endeavouring to trace the origin and wanderings of the great Chippewa nation we are confronted with insuperable difficulties. The Chippewas, now settled on Reservation lands in Ontario, have a tradition that their ancestors came originally from the east by way of the St. Lawrence River and the great lakes. When they entered the river joining Lakes Superior and Huron, a family of them took possession of the lands on both sides and claimed these lands for their hunting grounds, as early as the year 1500. The main body continued their march westward till they came to *La Pointe*, now Bayfield, Wisconsin, where they permanently encamped.

Increasing in numbers, they wrested from the Sioux of the upper Mississippi immense territory, including parts of Michigan, Minnesota, a large section of Wisconsin, and a great part of the Red River region. In fact, they ranged over a territory, extending, from east to west, one thousand miles, and formed one of the greatest tribes north of Mexico.

In Canada they claimed sovereignty over the regions lying to the west and north of Lakes Huron and Superior. By their conquests they became the largest and most formidable nation belonging to the great Algonquin family of American Indians.

But of the population of this formidable body and the territory claimed, in the sixteenth and seventeenth centuries, by the Chippewas, our early annals furnish us with no reliable information. In the early French period the numerical strength of the nation centred in the unexplored regions, where our annalists found no material out of which they could make history.

Though a numerically strong and formidable people, the Chippewas were, by reason of their isolation, at no time in our colonial history a prominent or influential people.

When French missionaries, trappers, voyageurs and traders found their way to the far west, they met bands of Chippewas everywhere from the Ottawa River to the head-waters of Lake Superior. Many of them were then rovers, traders and hunters, while others were settled in villages and practised a rude horticulture, raising corn, tobacco, and pumpkins, and harvesting wild rice.

Early in the eighteenth century they attacked the Reynards (Foxes) and drove them from their forests in northern Wisconsin. Then they turned their arms against the Sioux and, forcing them across the upper Mississippi, continued their victorious march until they came to the head-waters of the Red River and onward to Turtle Mountains, which became the limit to their western conquests.

The Chippewas were the only warriors who wrestled successfully with the all conquering Iroquois and barred their threatening conquest of western regions. They compelled the Five Nations to retire from the lands between Lakes Huron and Erie and entered into possession of these regions. Incorporated with the Chippewas in early times were the Nipissings, Ottawas, Maramegs, Maskegons and Beavers, and probably the Potowatamis, the Crees, and the Mascontins. In no other way can we account for their numbers or their conquest of a vast territory, stretching one thousand miles from east to west, and possibly eight hundred from north to south.

Decline of the Chippewas.

Their decline as a numerical and conquering people began when they became allies of the French in Frontenac's time, was hastened when they sided with the British during the war for American Independence, and was consummated in the war of 1812-14, in which they so bravely fought in defence of Canadian territory. After peace was made, and until they were confined to their Agencies or Reserves, the Chippewas of Ontario broke up into bands and wandering families and haunted the settlements and forests north of Lakes Ontario, Huron, and St. Clair, and both shores of Lake Superior.

Lodge and Village Life.

The Chippewas, although partially a sedentary people, relied for their subsistence on fishing, trapping and hunting; whatever agriculture, or rather horticulture, they practised, was confined to cultivating melons, tobacco and corn, and these were planted only by village people. Their swamp lands and shallow reaches of water spontaneously produced vast fields of wild rice, which the women annually harvested and dried for winter use. From beech trees, hawthorn, walnut and hazel trees they gathered edible nuts, and from wild plum trees, from raspberry, strawberry, cranberry, and blackberry plants and bushes they garnered a rich harvest in

season. They were skilled in the boiling and making of maple sugar, and from the Chippewas and Mississaugas our early colonists learned to manufacture it.

Many of their women were expert net, basket, and mat makers, and were proficient in tanning hides, cutting, sewing and ornamenting fawn skins into moccasins, leggings, and jerkins. From immemorial time her duties, occupations and place within and without the lodge were fixed and unalterable. While inferior to her husband and obedient to his will, she was not altogether his drudge, much less his slave.

The man's duty was to provide for his wife and children, to catch fish and to hunt wild animals, which furnished meat and clothes for himself and family; to defend his home when threatened by an enemy, and, with his tribe, to make war upon the foes of his people; to trade and barter, to build canoes and make and keep in good condition his weapons, and to escort his wife when she was obliged to go on a hazardous mission or to a dangerous place.

Daily Work of a Chippewa Squaw.

The woman's duties were to raise and train her children; occasionally, to load and unload the canoe, gather firewood, light the fires and prepare the meals, in which she was assisted by her daughters and her sons until they arrived at the age of twelve.

When the husband killed a deer or moose, he returned to his lodge, told his squaw where it lay, and she and her children went and brought in the carcass, skinned and dressed it for food. She tanned the pelt and preserved it for matting the floor of the lodge, for clothes, leggings, and moccasins, or for barter. She and her children gathered, in season, berries, edible roots and nuts; being strong and healthy, she helped in paddling the canoe, and when her husband and grown sons had cleared a patch of ground by tearing out the brush and girdling the trees to let in the sunlight, the wife and daughters did the sowing, hoeing and harvesting. They made clothes for the family, did the washing and patching, ground or pounded the corn and, out of the meal mixed with water and seasoned with bear's fat, made *sâgamité*.

The woman also extracted oil from walnuts, made boxes from the basswood, or linden trees, for holding grain, nuts and other articles, and from the bark of the young basswoods made strings for tying bundles, and ropes for hauling the sledge or toboggan. The men made their own snow-shoes and the women theirs. The scrub or charwoman and the girls working in our offices and department stores are less healthy and contented than were the women and girls of the Chippewas. The squaws were never known to complain over the hardships of their lives, and at no time did they consider their tasks more trying than those of the men.

For the life lived by the warrior and hunter was at all times one of exposure, of danger, accident and perhaps mutilation; of great deprivation and fatigue which exposed him to many diseases and dangers to which the woman was not exposed. He never interfered with the woman or with the management of the lodge, or of the children. When the seeding was done, or the tent pitched, she had many idle hours which she could spend as she willed.

Therefore, the woman cheerfully accepted her place in the tribe and in the family which immemorial custom had sanctioned. She was a good cook, lodge-keeper and mother. When preparing a meal for her husband and children she first wrapped the meat in leaves and then roasted it on red hot coals. She sometimes broiled it on hot ashes and embers, or suspended it by a vine before a strong fire;

for a change she chopped and boiled the meat with vegetables and succulent roots. From ripening corn recently gathered or dried, and from meat, bear's fat and marrow she prepared a nutritive and a very savory and palatable meal. Fish they always had in season, when camping by lake or river.

When the days were long and supplies abundant the man and woman ate three meals a day, but when hunting was bad they lived on two meals and often on only one. They were of sound constitution, healthy and vigorous, and, like all the Indians of North America, wore their hair long and, to protect their hair from vermin, often greased it. Birth deformities were exceptionally rare among the Chippewas, whose teeth, sight and hearing remained unimpaired to a ripe old age.

Child Life Among the Chippewas.

A child, at its birth, was of light cream colour, with the exception of the parts under the eyes and along the spinal ridge, which were deeply shaded. The squaws during their married life gave birth to three or four children, which they suckled from two to three years, and occasionally even longer. To this they were compelled by the difficulty of obtaining nourishment which the feeble organs of the child could

Wagoosh family—Chippewa—Five generations—Gore Bay.

digest. When the infants attained a certain age they were wrapped in fine fur and were secured with belts to a small board.

When travelling, the mother placed this board, supported by a head band, on her back, but when resting and working she suspended it from the limb of a tree or a stake driven into the ground. She fed the infant at stated intervals, disregarding its cries at other times. When the temperature was mild, the mother bathed the child daily in the open air, till it was able to walk, and this was done to inure the child to all seasons and changes of weather. When the child grew to the age of three years it was permitted to run about. If the child was a boy the mother then began training it for its future life; taught it to be courageous, to bear pain with fortitude, to shoot straight with his arrow, to run, to wrestle, jump and swim. When the boy attained a certain age his father took over his training, brought him with him when hunting and fishing and on campaigns into an enemy's country. When, in ambush or in battle, he killed and scalped an enemy, he attained the rank of warrior, and became an accredited member of the tribe.

The little girl was taught to tan hides, cut, sew and ornament leggings and moccasins, and build a lodge. She learned how to prepare and cook food, to fish, and make her own clothes.

The Chippewas have been charged with being an unclean and filthy race, whose habits were repulsive, whose bodies were covered with vermin, and whose lodges were foul with unpleasant smells. This charge is not altogether true. Those who accuse these barbarians of uncleanness ought not to forget that civilized London at the time of the Great Plague, 1665, was, according to Defoe, "a sink of filth and disease, with impure water and no drainage," and that the awful plague of Milan, 1576, was caused, as Mazzoni informs us, "by filth and garbage left rotting in the streets inhabited by the poor." Conditions and environment enter largely into the formation of the habits and customs of all peoples.

SAINTE-MARIE-DU-SAULT.

The "Soo."

At the time of the visit of the Jesuit missionaries in 1641, the Chippewa name of the village on the south bank of the St. Mary's River was *Bawi-ti-gunk*. The priests, who gave saints' names to all their missions, called it Sainte-Marie-du Sault, and to the people inhabiting the village they gave the name of "gens du Sault," or "Habitants du Sault"—Relations 1640-42. The early French traders always referred to them as "Sauteurs—people of the Falls or Rapids"—and when these traders advanced westward and encountered other Chippewa tribes, or families, the word Sauteurs meant always among the French all Chippewas east of the head-waters of Lake Superior.

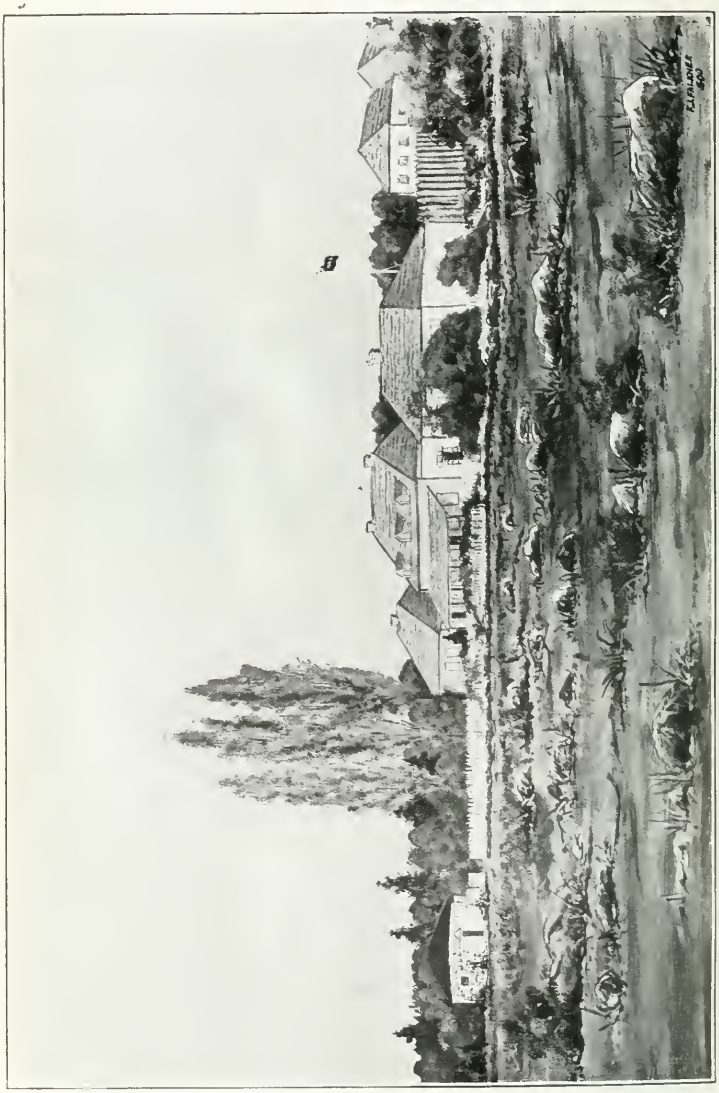
There is a tradition lingering with the Chippewas of Ontario that the site of the ancient village is sacred ground, consecrated as the resting place of the first migrants of the nation, and from which there went out all of those early families that peopled the land on both shores of Lake Superior.

From the time of the visit of Fathers Jogues and Raymbault, the village and its people became prominent in the early annals of Canada. The "Falls" and river of St. Mary are shown on Champlain's map, 1632; the river is also conspicuous on Nicholas Sanson's map, 1656, and was, without doubt, drawn on the lost map of Father Chaumonot, made in 1641.*

The Huron map, mentioned in the Relation 1640, showed only the nations affiliated by language to the Hurons. Accompanying the Relation of 1670 was a map of Lakes Superior, Huron and Michigan, made by the missionaries to the Chippewas. The Jesuits also drew a map—enlarged by Marquette—of the lands discovered in 1672. This map is shown in Marcel's "Cartographie de la Nouvelle—France." Here, in 1669, the Jesuit Father Allouez established the first permanent mission, to which came in their distress the daring Sulpicians, Dollier de Casson and l'Abbè de Galinée, after failing in their lofty hope to preach the gospel to the tribes on the Mississippi.

Believing that the Sault was the key to the Great West, Allouez, in conjunction with Father Dablon, the Superior of the western missions, made a large clearance for planting grain and built a fortified house, chapel, and sleeping quarters for twenty or thirty visiting *voyageurs* and traders. From here Allouez went to establish the mission of St. Francis Xavier on the Fox River, near Green Bay. This

*Champlain, probably, obtained his information on the falls and river from Etiènne Brûlé, his interpreter, who, according to Sagard, made a voyage with his companion, Grenolle, to Lake Superior. Nicholas Sanson d'Abbeville, cartographist to the King of France, was never in Canada. He may have seen a copy, or the map itself, of Father Chaumonot, drawn in 1641. Father Ducreux, in his Latin Map, 1660, was also no doubt indebted to Chaumonot for his knowledge of the regions of the "Great Lakes."



Hudson Bay Company's Trading Post—1842—Sault Ste. Marie.

mission on Lake Michigan among the Mascoutins, Winnebagoes, Foxes, Sacs, and Pottawatomies, opened the way for the discovery of the Mississippi. In the fall of 1670 Father Marquette was with Dablon on the Sault mission, and, after visiting the mission of St. Esprit, at Lapointe, went to Michilimackinac, where he founded the mission of St. Ignatius, and from which mission he started, May 17, 1673, with Joliet for the discovery and exploration of the Mississippi River.

On a plateau overlooking the Indian village of Sault Ste. Marie (the Chippewa Bawi-ti-gunk), assembled, in 1670, the greatest number of Algonquin chiefs and warriors that had ever met in council in New France. Acting under instructions from the Colonial Intendant, Talon, Daumont de St. Lusson met the intrepid explorer and interpreter, Nicholas Perrot, at Manitoulin Island, and delivering to him the Intendant's orders, commissioned him to visit the Algonquins of the Lakes and invite them to meet at Sault Ste. Marie, the French deputy.

The reasons for this assembly were given to Talon by the French Minister of State, who instructed Talon to take, on behalf of the French Crown, formal possession of the territories of the great west as far as the mythical south sea.

Perrot's reputation stood high with the Algonquins and in answer to his invitation the representative warriors and chiefs assembled near the ancient village of the Sauteurs. Fourteen tribes spoke by their tribal orators that day. From the north came Crees, Nipissings and Chippewas; the Menomonees, Winnesbagoes, Sacs, Reynards, Pottawatomies, Miamis, Mascoutins, and Kickapoos, gathered from Michigan and Wisconsin, and from the northern shores of Lake Huron came the Maramegs and the Amikoués.

On behalf of the French, Perrot and Joliet were there, surrounded by French-Canadian trappers, *voyageurs*, traders and *coureurs des bois*. Conspicuous among all were the Jesuit "black-robes." Druillettes, André, Dablon, and the heroic Allouez, orator for the French King and pleader for the Faith. Perrot translated Saint-Lusson's address and read in Algonquin the commission from the Intendant authorizing Saint-Lusson to represent him at the meeting. Perrot, in harmony with the address of Father Allouez, appealed to the tribes to place themselves and their lands under the protection of the King of France, who with his soldiers would subdue their ferocious enemy, the Iroquois.

The Algonquins, fearing ruin by the guns and tomahawks of the Mohawks and Senecas, accepted the French King as their father and put themselves and their lands under his protection.

This great reunion of French and Indians marked the beginning of the claim of France to the regions of the far west and to the lands watered by the Mississippi River.*

Of the numbers occupying this fishing village of Bawi-ti-gunk at the time of the visit of Fathers Jogues and Raymbault, the Relation of 1641 furnishes no information. The Jesuits established their first mission here in 1669, and it then had a population of one hundred and fifty souls. (Rel. 1671.) Those living in the village were probably members of a large band living or hunting in the surrounding woods. The important place allotted in our early annals to these river people was due to the strategic position of their town which guarded the strait, to its being the site of the first mission opened permanently west of Huronia, and to the fact that it was the meeting place for the western and eastern Chippewas.

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*Rochemonteix, copying the "Act of Possession" preserved among the archives of the Ministry of Marine, fixes the 14th of June, 1671, as the correct date of this epochal assembly.

Sault Ste. Marie—1863—looking westward.

We do not know when the Chippewas built their village here, but the Sauteurs told the two priests who visited them in 1641, that it had been inhabited for a very long time. In time, La Pointe, on Chequamegon Bay, became the rendezvous of the Chippewas, and was, according to Henry, the fur-trader, the metropolis of the tribe in 1765, when he established his post there.

MODERN CHIPPEWA.

In spite of the constant petty wars and raids carried on by the various bands of the Chippewas during the past 300 years or more, since they were first visited by Brûlé at the Sault, there still remain about 32,000 of these people. Some 17,000 are located on reserves in the States of Michigan, Wisconsin and Minnesota, U. S. A. In the province of Ontario are located 12,983, Manitoba and Saskatchewan, 2,455. Those residing in this province are distributed in 21 agencies, extending from the south-east peninsula of Ontario to the boundary line of Manitoba in the west. It is impossible to determine even approximately the past or present numbers of the Chippewas. In the early days of European contact only a small number of this extensive tribe came in contact with the Whites. At the present time there is not only an admixture from other tribes, but three centuries of contact with trappers, traders, and others of the white race has had its effect, so that it is now said that the pure-blooded Indians in this tribe are in the minority.

There are 27 Indian Agencies in Ontario, and of these 21 are Chippewas. The land reserved for the Indians of the province is 1,004,979 acres, of which but a very small amount is cultivated. The Agencies at Walpole Island, Saugeen, Rama, are all small. The Parry Sound Agency is somewhat larger, the total area of the reserves in this Agency is 87,432 acres. Through the courtesy of R. J. Lewis, Esq., Indian Agent for the Manitowaning Agency, Manitoulin Island, a very pleasant day was spent visiting some of the eleven bands comprised in this Agency. Manitowaning village is beautifully situated on the west side of a bay of the same name, and looking eastward across the bay is the Manitoulin Island unceded reserve. An excellent drive around the south end of the bay soon brought the old wooden gate, marking the entrance of the reserve, in sight. This road runs through the reserve to the head-quarters of the Tahgaiwinini band. Here is a very extensive Indian village, some farm houses, but mostly log (square), all whitewashed both inside and out, which lends to the village a clean appearance. Here are situated industrial schools, as well as others. The church (R. C.) and buildings adjoining are of stone and very imposing. The Indians of this Agency are fairly industrious and give evidence of an advance to a civilization much beyond what was generally expected. The trip from Manitowaning to Gore Bay by the southern road is a most delightful one, a distance of nearly 60 miles. The roadbed is first-class, magnificent farms lie on both sides, brick houses, bank barns, and nearly every farmer has his auto. Truly this island of Manitoulin was an ideal home for the Ottawas, Chippewas, Nipissings and the other Indian tribes who occupied it in the ages of an unknown past. The Spanish River band near Cutler Station, C. P. R., are a small but very intelligent band.

Sault Ste. Marie Agency.

This Agency includes three bands, Garden River, Batchawana and Michipicoten. The area of the reserves in this Agency is 39,816 acres of which 1,826 acres are

Sault Ste. Marie 1863—looking eastward.

under cultivation. The Garden River Reserve is beautifully situated on the Sault River. The old Indian trail from the rapids to the mouth of the Garden River is still utilized as a highway. The trip over it was made in a taxi. On this road is situated the Shingwauk Home. The Rev. Mr. Fuller is in charge and good work is being done but more funds are required. A. D. McNabb, Esq., their agent, states of the Garden River band: "That most of them are excellent workers. The young men follow lumbering, and the middle-aged and old men are turning their attention to the land for a livelihood. They are beginning to see that by a little perseverance they will soon be as well off as their white neighbours."

Fort William Agency comprises seven bands with a population of 1,500. The celebrated Red Rock bands are in this agency and situated on the Nipigon River. They are expert canoe men and act as guides for tourists in this celebrated trout resort.

The Lake of the Woods inspectorate is composed of three agencies, Kenora, Savanna, and Fort Frances, an area of 306,121 acres. They speak the ancient language of the Chippewas. They are mostly hunters and fishermen and number about 2,000 souls.

The Kenora Agency covers the Lake of the Woods, Shoal Lake and a portion of Winnipeg River. The Savanna Agency extends from Eagle Lake eastward along the line of the C. P. R. to Ignace and Lac de Mille Lacs, from Minaki along the line of the G. T. R., eastward to Sioux Lookout; thence northward to Frenchman's Head and Lac Seul; thence down the English River to Wabuskang and Grassy Narrows.

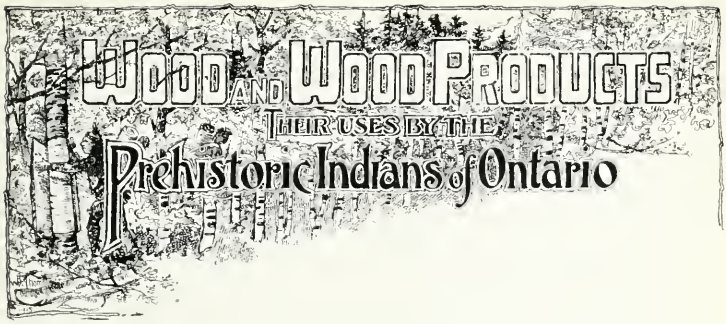
The Fort Frances Agency includes the country along the Rainy River to Fort Frances, the Rainy Lake, Seine River, Lac la Croix and Sturgeon Lake.

The War.

At the present time it is impossible to give the exact number of Indian enlistments, but an approximate estimate places the minimum at over 2,000. The record is an excellent one considering that the Indian men of military age do not exceed 15,000. In the province of Ontario the number of enlistments among many of the Indian bands will compare favourably with the showing of an average white settlement. Association with these Chippewa bands shows a great lack in the old respect shown to their chiefs. This is largely due to the lengthened contact with the lumbermen as well as fur-traders, who found it to their interest to break up or weaken these chieftaincies.

Duncan C. Scott, Deputy Superintendent General of Indian Affairs, in his report of 1917 writes of the Indian as follows: "The Department frequently receives testimonials of loyalty from Indian bands and letters from individual Indians, which are fired with a zealous and sincere patriotism and often display a highly intelligent interest in the progress of the war and a remarkably clear grasp of the principles which are at stake. Many interesting letters have been received from Indians at the front describing in some instances in a particularly graphic manner their experiences and impressions." It is an inspiring fact that these descendants of the aboriginal inhabitants of a continent so recently appropriated by our own ancestors should voluntarily sacrifice their lives on European battlefields side by side with men of our own race for the preservation of the ideals of our civilization, and their staunch devotion forms an eloquent tribute to the beneficent character of British rule over a native people.

Richibucto Harbour—Indian Reserve Across the Water.



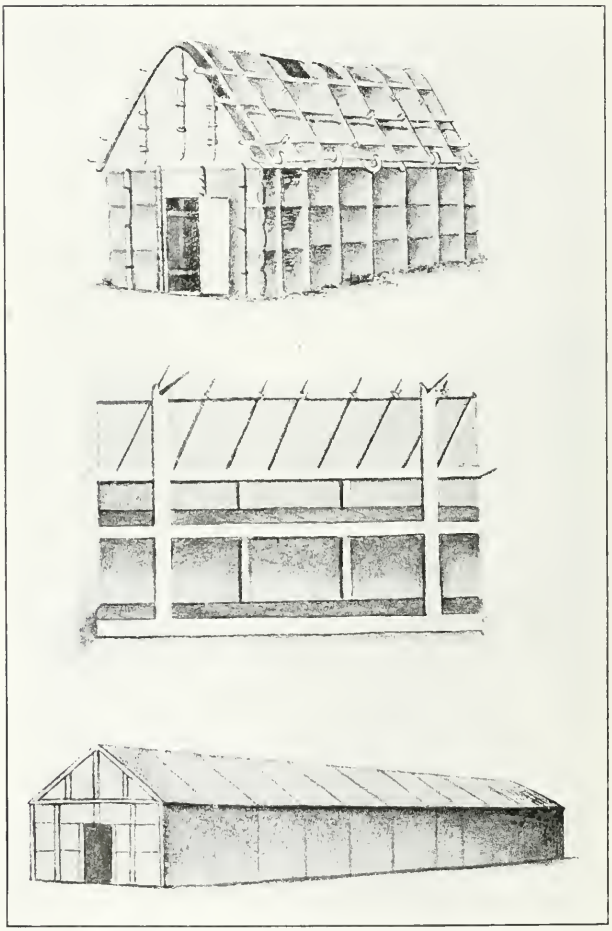
The Indian tribes of Ontario, with few exceptions, made much use of wood, and generally were very skilled workers in that material, an abundant supply of which could be found in all parts of the province. The implements chiefly employed in taking out timber were fire, the stone axe, wedges made from wood, antlers, and stone. The mauls were of stone and wood. With these tools the largest trees could be felled and divided into lengths. These were split into boards or other material by the use of wedges. The smaller pieces of wood were cut with stone tools into whatever shape or size was desired for the various finished products they were to be utilized for.

The knife, adze, axe, chisel, saw, drill, rasp, and the smoother, made of suitable shell, stone, copper, or teeth, were used for bringing the material into proper shape, whether for commercial, ceremonial, or utilitarian purposes. A few amongst the very numerous products of wood-working may be mentioned: gaming-block with sticks for counting, and baskets for throwing them with, bows, arrows, spears with burned points to thus harden—armour-boat frames—boats—sledges—mortars, pestles—fire-drills—masks, pipes, pipe-stems, oars, musical instruments, weapons of war, false faces, with a host of other articles, both for ornamental and household purposes. Amongst these artifacts are specimens carved with such great skill as to warrant them being placed in the class of art productions.

Fire Making.

Several methods of making fire were in use by the aborigines of Ontario at the time when white men appeared amongst them. Simple friction of two dry sticks was frequently employed by the Indians. A Huron method, not so much used by the Algonquin tribes, was by rapidly turning a cedar or other stick.

Mercer in his article on "Light and Fire Making" gives a description of this method as follows: "Make a spindle of hard wood (hickory, cedar) weighted as here (plate), with a fly-wheel made of strips of bark pegged or sewed together. A withe bow, with a rawhide string caught at the notch on the spindle top, causes the latter to twirl back and forth as you lift and press the bow. For your hearth, notch against the side of a piece of juniper, pine, or cedar, twirling your spindle point at a nick previously made in the wood directly over the notch. In about 20 seconds the drill point smokes, while a brown powder, scorched from the fraying wood, rises around the revolving spindle end and rolls down the notch. If all goes well, this dust should ignite into a spark in about



Bark House, with inner and outer frame—(Morgan).

Interior, showing the arrangement of upper and lower berths.

Long House—having an angular instead of usual rounded roof (Beauchamp).

a minute. Blow this into dry punk (a locust tree fungus), and fan the latter into flames against fine vegetable fibre, such as frayed cedar bark, leaves and grass." Flint and pyrites (the progenitor of flint and steel) were extensively used by the Algonquin tribes, particularly in Northern Ontario. Many other methods were also made use of, and thus, by the use of fire, the conquest of the great forests was accomplished. With it they felled trees and reduced them to any desired length. With it they hollowed out their mortars and canoes, as well as many household utensils.

Houses.

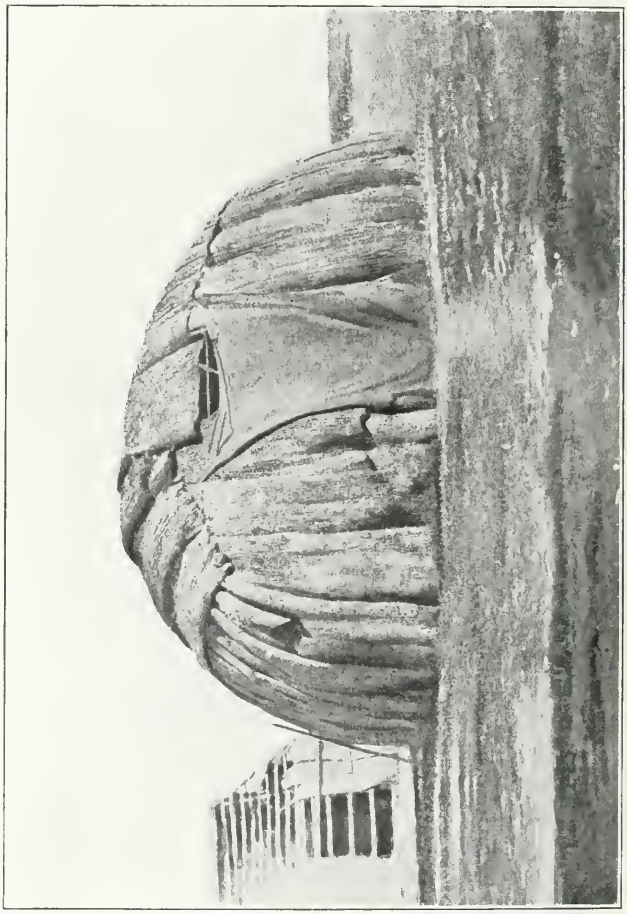
Most of the early writers have given accounts of the primitive dwellings of our aborigines. Amongst our northern tribes there was less national difference than has been asserted. The Algonquin long houses of Ontario differ but little from those of his hereditary enemy across the lakes, the Iroquois. These long houses are of various sizes, some 20, some 40 feet long, and some have been seen varying from 60 to 100 feet long, and 30 feet broad. The long or bark house was in general

Inner view of Palisade showing the alternate posts

Simple triple Palisade before adding breastwork or parapet

use throughout this province by the Algonquins, Hurons, Tionnontates, and Attiwandarons. In building these houses basswood was preferred. The bark was cut from six to nine feet long, peeled from the tree, and laid under stones to flatten it out. The framework of poles was strengthened by cross beams and covered within and without with bark sewed together with hickory cord.

Van der Donck, who was quite conversant with Algonquin, Huron, and Iroquoian methods of house-building, gives the following excellent description of the same. "Sometimes they built their houses about 100 feet long, but never more than 20 feet wide. When they build a house they place long slender saplings in the ground, having the bark stripped off, in a straight line of two rows and as far asunder as they intend the breadth of the house to be, and continued the rows as far as it is intended the length shall be. Those sapling poles are bent over towards each other in the form of an arch and secured together,



Permanent ash-bark wigwam of the wild rice gathering Ojibwa.

Portable birch-bark and rush-matting wigwam of the wild rice gathering Ojibwa.

having the appearance of a garden arbor. The sapling poles are then crossed with split poles in the form of lathing, which are well fastened to the upright work. These lodges were very common amongst Ontario Indians. Their constant dread of the Iroquois, as well as the nomadic character of many of our tribes, necessitated temporary abodes.

Household Articles.

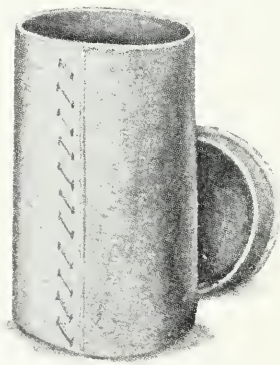
While their spoons were made of a wide variety of material, wood was most frequently used. They were of a large size, much exceeding European utensils of this class. The softer woods, such as basswood, were most commonly employed, and in their manufacture, fire, adze, and scraper were used. At times knots were used, which while more durable, yet were very much harder to bring into shape. The Indians in those early days, when French and English came in contact with them, laughed at the white man for using such small ones. They even suggested to the newcomers that their arms must get tired carrying such a small quantity to their mouths each time. Their ladles were made in much the same way as spoons, only containing a larger quantity and having a longer handle. The carving frequently was both elegantly and artistically done. Trays of large size were made and used by them. Their cups and pots, while more generally made of burned clay pottery, were also carved and burned out of various kinds of wood.

Bark was used for making their barrels. These would frequently contain as much as three bushels of corn. In the manufacture of these, the inner rind of red elm or black ash bark was used. The grain was made to run around the barrel, which was firmly stitched up its side. It had a bottom secured in the same manner, and also a lid. In most of their bark houses the good housewife kept a homing stick used for stirring pottage. It was from two and a half to three feet long, and varied from the crudest form of a stick rudely made, to those most elaborately carved. The upper end frequently had their totem or other animal representation, beautifully shaped, cut thereon. When convenient, it was frequently used by the Indian women to chastise their unruly children, or else to drive their hungry dogs out of the house. Bark mats, as well as those made out of other wood material or grasses, were very important articles in every well-regulated household. Their size varied greatly. Some were only sufficiently large for a single person to sit upon, others were many yards in length, but their width was restricted to a few feet owing to the conditions of construction. Probably no class of articles of textile nature was more universally employed by the primitive inhabitants of North America than mats of reeds, rushes, split cane, and wood; and information, derived from such remnants of the articles themselves as have been recovered from caves and graves, is quite full and satisfactory. De la Potherie states that the mats so much used for beds and carpets, and for covering or shelters, houses, etc., were probably made of pliable materials such as rushes; when used as beds, one end of the mat was rolled up for a pillow. Mats were not only used in and about the dwellings of the aborigines, but it was a common practice to carry them from place to place to sleep on, or for use as seats or carpeting in meetings or councils of ceremonial nature.

Figure No. 13106—Chippewa Sap Bucket—Manitoulin.

Basketry.

Among the resources of nature utilized by the tribes of Ontario, bark was of prime importance, and no branch of the textile art was of greater usefulness to the aborigines than basketry. Basketry includes a number of groups of utensils distinguished from one another by the use to which they were devoted. There are baskets proper, hampers, cradles, shields, quivers, sieves, and numerous other articles for household and other purposes. The material included nearly the whole series of North American textile plants, and the Indian women explored the tribal habitat for the best. They knew the time and season for gathering. In fact, it may well be said that before the coming of Europeans, basketry supplied nearly every domestic necessity of the Indians from an infant's cradle to the richly decorated fernery jars burned with the dead. Through the province of Ontario, birch bark furnished the base for many of their household utensils—their pails and sap-buckets were very quickly made by the Indian women and



Indian Bark Barrel.

served the purpose of gathering the maple sap (for making sugar) much better than the troughs made by their more civilized successors. Great preparation and skill were necessary in preparing basketry cooking pots. They must be substantial and watertight, the proper kind of stones must be selected and cleaned, and tongs of a certain kind of wood were used to place the heated stones within the basket pot, and thus heating of water and cooking of food were accomplished.

(P. 347.) Louis H. Morgan writes that "In the art of basket work in all its varieties the Iroquois women also excel. Their baskets are made with a neatness, ingenuity, and simplicity, which deserve the highest praise. Splint is the chief material, but they likewise use a species of sweet grass and also corn husks. Among these various patterns, which are as diversified as convenience or ingenuity could suggest, the most perfectly finished is the sieve-basket. It is designed for sifting corn meal to remove the chit and coarse particles after the corn has been pounded into flour. The bottom of the basket is woven in such fine checks that it answered very perfectly all the ends of the wire sieve. In their domestic economy the basket answered many purposes."

Figure No. 13099—Chippewa Sap Trough, Manitoulin.

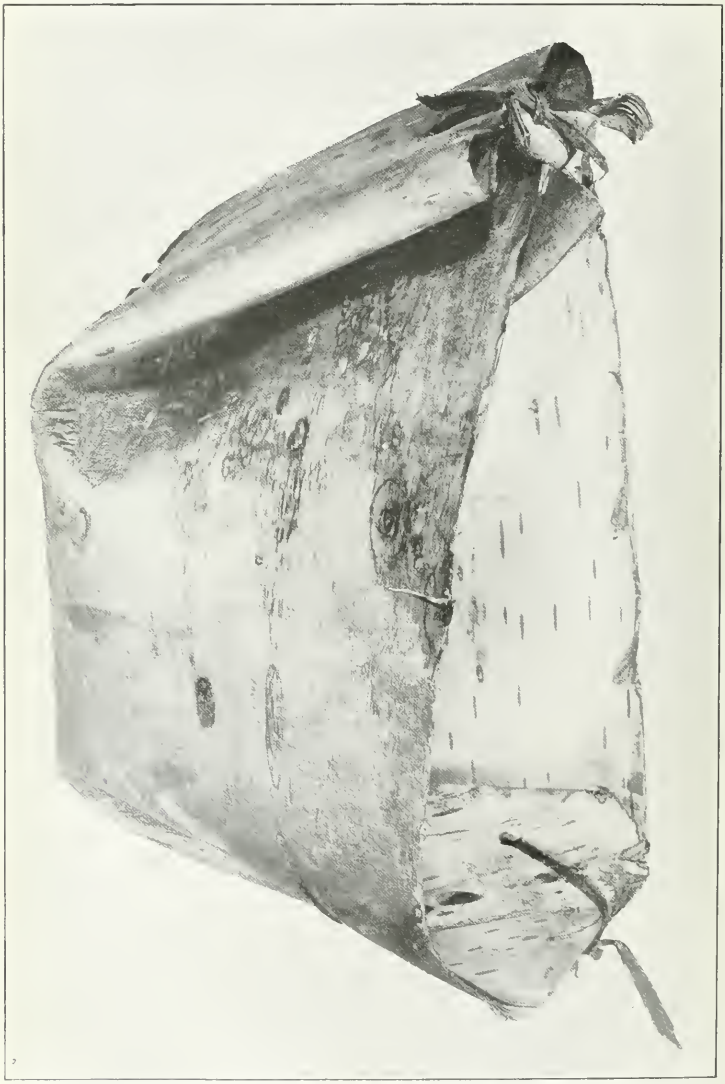


Figure No. 13099—Chippewa Sap Trough, Manitoulin.

Page 41 represents an open twined wallet of the Chippewa Indians, who dwelt near St. Charles, Saginaw County, Michigan. The native name is Na Moot and it is made from the inner bark of the slippery elm. The technique of these wallets is so interesting in the survival of ancient weaves that they justify a special description. The weft is plain twined weaving; all the ornamentation, therefore, is effected by means of the warp, which is partly vertical, but more of the zigzag type seen in many Aleutian Island wallets. In all of the specimens examined, the warp is made up of twine, partly in the material of the weft and partly in coloured yarns. The diameter of the warp twine, especially the yarns, seems to be greater than the length of the twists in the weft, so that there is a crowding which brings one colour to the front and leaves another colour inside—that is, the figures that are brown on the outside will appear in yarn on the inside, and the reverse. To be more explicit, beginning at the lower edge of any one of these wallets the warp may be in pairs, the elements of which separate and come together alternately in the rows of weaving. On the outside of the bag two elm-bark warp strands will be included and appear; in the next half twine two yarns will be included and show on the inside of the wallet. After this zigzag process goes on for a short distance the weaver changes her plan, omits the bark or the

Figure No. 25488—Bone Bowl, Grave, Walker Farm.

yarn warp altogether, but continues the twining process, catching the warp in every other half turn of the twine. Again, there will be a row or two of ordinary twined weaving with straight warp, when she returns to her zigzag method, covering the entire surface therewith. At the top of the bag, an inch, or less, of plain twined weaving, in which the warps are vertical and included in pairs, brings her to the outer border, where all the warps are twisted together and turned back to be fastened off in the texture.

Mortars.

These were utensils employed by the Indian tribes for the trituration of food. The wooden mortar was usually made of a section of wood two and a half feet long, and two feet across at the top. Sometimes a flat bottom was found, sometimes the base was pointed so as to fit in a hole made in the ground. The cavity was hollowed out by burning and scraping. The pestles used were of hard wood and in the neighbourhood of four feet long. In some cases they were constricted about the middle and then expanded towards each end in a narrowly elliptic form, others were enlarged only at the lower end. Two women can pound together with alternate strokes—which is the favourite way.

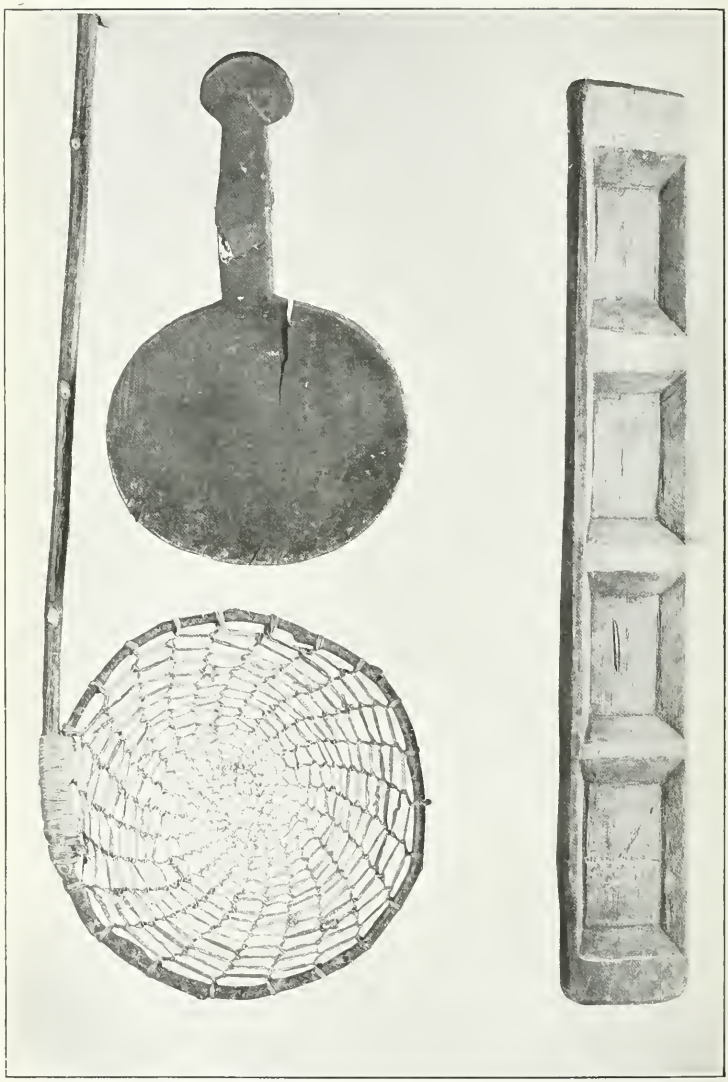


Figure No. 21777—Maple Sap Skimmer, Chippewa—Manitoulin Island.
Figure No. 10512—Ladle or Skimmer of Wood.
Figure No. 13101—Chippewa Sugar Mould, Manitoulin.

Implements of Warfare.

Their implements of warfare were mostly made of wood. Gookin, an early writer, states that "their weapons were bows and arrows, clubs and tomahawks, made of wood like a pole-axe, with a sharpened stone fastened thereon, and for defence they had targets made of the bark of trees. The bows and arrows of the prehistoric races of Ontario were much the same as those to be seen to-day." Mason, in the "Handbook of American Indians" states that "the bows of the

Bird-eye Maple Cup—very old.

North American Indians are quite as interesting as their arrows. The varied environments quickened the inventive faculty and produced several varieties, (1) self bow made of one piece, (2) compound bow of several pieces of wood, bone, or horn, lashed together, (3) sinew baked bow, a bow of drift-wood, or other brittle wood, reinforced with cord of sinew wrapped many times about it lengthwise, from wing to wing, (4) sinew lined bow, a self bow, the back of which is further strengthened with sinew glued on."

Figure No. 25006—Wooden Spoon or Ladle (Missisauga).

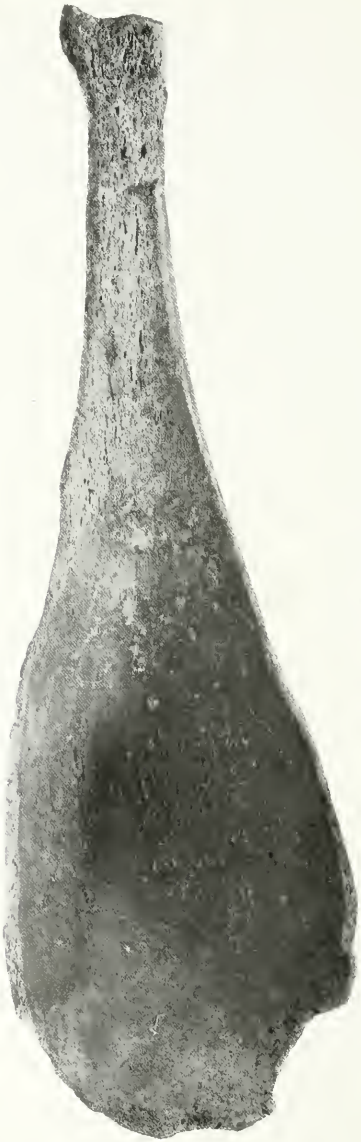
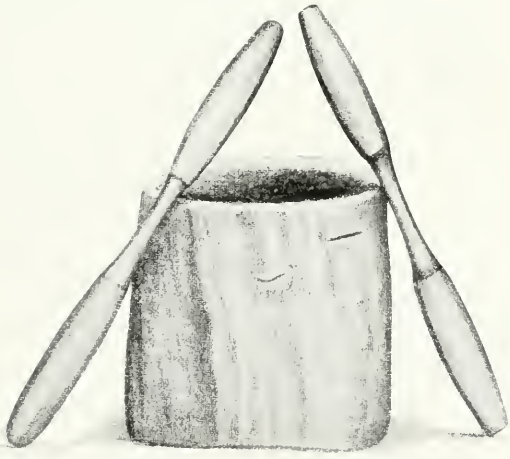


Figure No. 25493—Spoon, Grave, Walker Farm.

In the St. Lawrence and lake region the self bow was the one commonly used, and was made of second growth hickory, ash, oak, or other hard wood. For striking or piercing distant objects the bow and arrow was the most useful and universal weapon and implement of the chase possessed by our prehistoric races in the province of Ontario. The arrow shafts were of the simplest kind and were manufactured out of wood, stems of wood, reeds, and canes. The feathering is an important feature in the Indian arrow, differing according to the species of birds, the kind and number of feathers, and in their form, length, and manner of setting. Arrows are usually either without feathering or with two feathers or three feathers.

Quivers.

The material out of which quivers were made was usually determined by the locality. On the Pacific Coast, cedar quivers were extensively used, but in this province, deer-skin, or the hide of some other animal, was most frequently utilized.

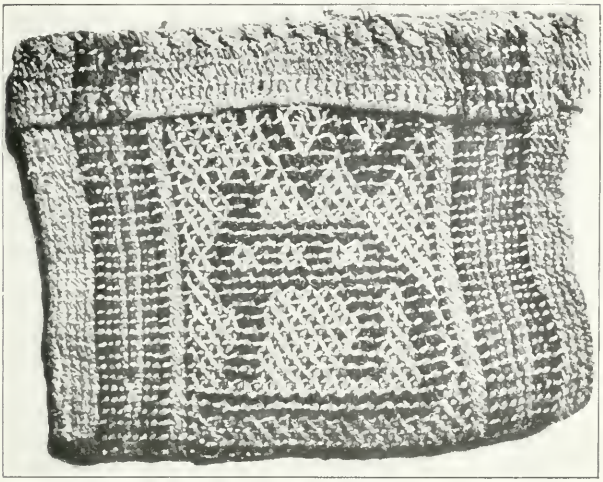


Wooden Pestles and Mortar.

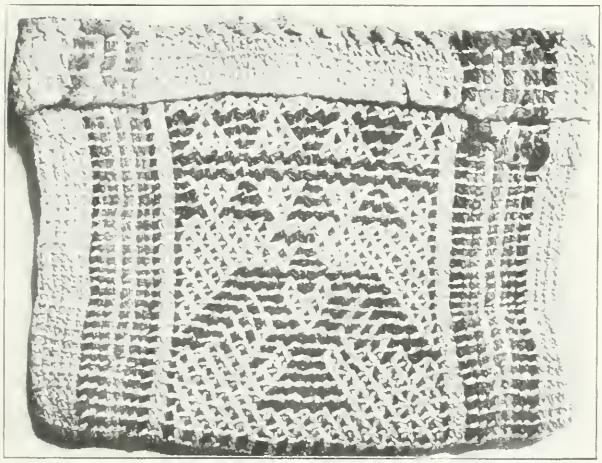
Most beautifully decorated examples are to be found in the Ontario Provincial Museum.

The blow gun, though once very common, is now a weapon of the past in this province. Morgan describes it as "a wooden tube six feet long and an inch thick." In the half-inch bore was placed a slender dart, two feet long, sharp-pointed, and with a ball of thistledown at the base. The dart could be discharged with great accuracy by blowing below it in the tube. One of these guns was presented to the museum by Mr. Parish, who secured it in the interior of British Guiana, and differs only from those described by Morgan in that cotton was used instead of thistledown, and the sharp point of the dart was dipped in poison (probably quiarra).

Figure No. 25479—Wooden Spoon, Grave, Walker Farm.



Chippewa Twined Wallet—Reverse side.



Chippewa Twined Wallet.

Tomahawks.

The Algonquin war tomahawk originally belonged to the war club, though the name applied to a group of weapons in common use among the Algonquin tribes. The English probably derived this word from the Virginia dialect as tommahick—tomahack—tomahake—(Strachey, 1612).

Figure 37592 illustrates one of the numerous forms found in the Museum collection. On their wooden handles are to be found excellent engravings. They were highly decorated with paint, with gaudy feathers dangling at the end of the wooden handle. Roger states that this weapon is formed much like a hatchet, having a long stem or handle. The head is a round ball or knob of solid wood, well enough calculated to knock men's brains out. The tomahawk, like their pipes, was very generally employed in their tribal ceremonies.

Armour.

The Indians wore armour and helmets that they made themselves from light wood such as cedar or basswood. Those from thin reeds and strings were so well made that no arrow or tomahawk could pass through to wound them. Many early writers might be mentioned who give a description of the armour. Lafitau (1724) said their cuirass was a tissue of wood, or of small sticks of reed cut to proportionate lengths, strongly pressed against each other, woven and enlaced very closely with small cords made of deerskin. Fig. 66 shows the angular Canadian shield as represented by Champlain; he figured some of these sufficiently curved to stand by themselves, thus sheltering the warrior behind them.

While nature furnished the simplest defence to the Indians in the vast forests which surrounded them, yet this at times had to be supplemented by the handiwork of man. In various parts of this province (Ontario) are to be found the earth remains of what were, once, extensively fortified village sites. Earthworks similar to those found at Southwold, Shaw-Wood, near London, Whitchurch, and many in the County of Simcoe. These elevations of earth, with a moat on the outside, and frequently on the inner, were palisaded with heavy timbers—in many cases double rows, and, in some, triple. When the white man first visited Canada, most of the villages were protected with surrounding stockades. The construction of these defences was practically the same, whether they enclosed a single house or fifty houses. Some few of these forts were square, but the majority were circular. Most of the early figures of these forts represent them as having a single entrance between overlapping ends of the stockades. These wooden walls varied considerably in height, many of them attaining the height of 20 feet. The earliest Canadian fort, of which we have any contemporaneous description, was that visited by Jacques Cartier in 1535. This fort was probably occupied by an Iroquois band. We quote a brief account from translation made by Hakluyt—"The citie of Hochelaga is one within another, framed like a sharp spire, or pyramid, but laid acrosse above. The middlemost of them is perpendicular. The Rampires are framed and fashioned with pieces of timber, layd along very well and cunningly joyned together after their fashion. This enclosure is in height about two rods. It hath but one gate or entry thereat, which is shut with piles, stakes, and barres. Over it, and also in many places of the wall, there is a kind of gallerie to run along, and ladders to get up, all full of stones and pebbles for the defence of it."

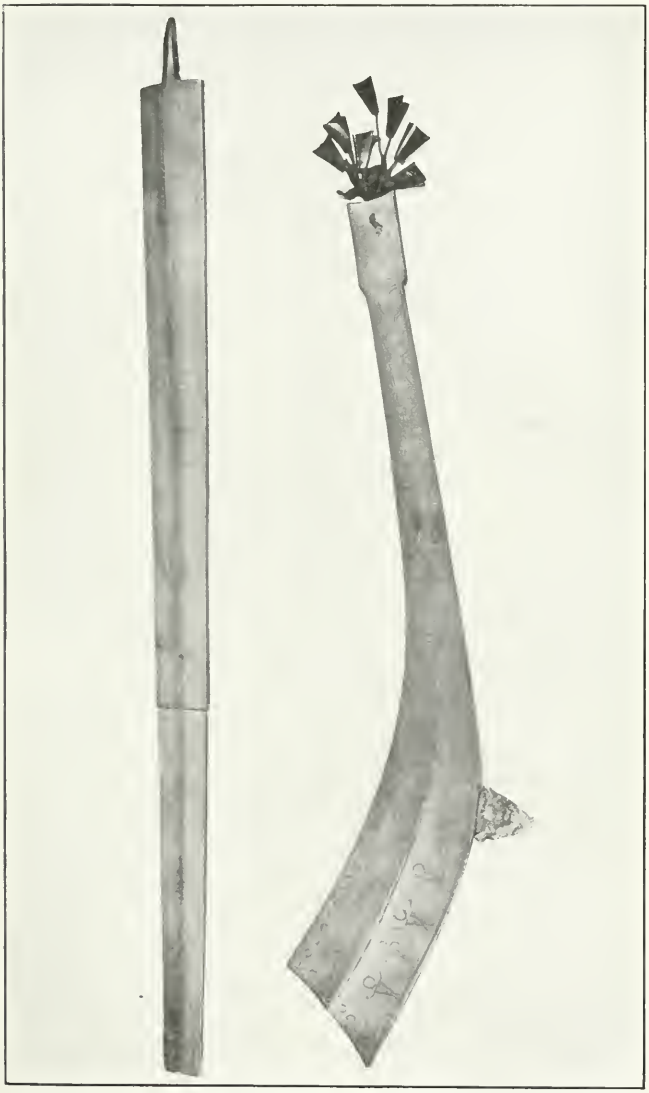


Figure No. 37592—Tomahawk. Eames collection.
Figure No. 37589—Pipe Stem.

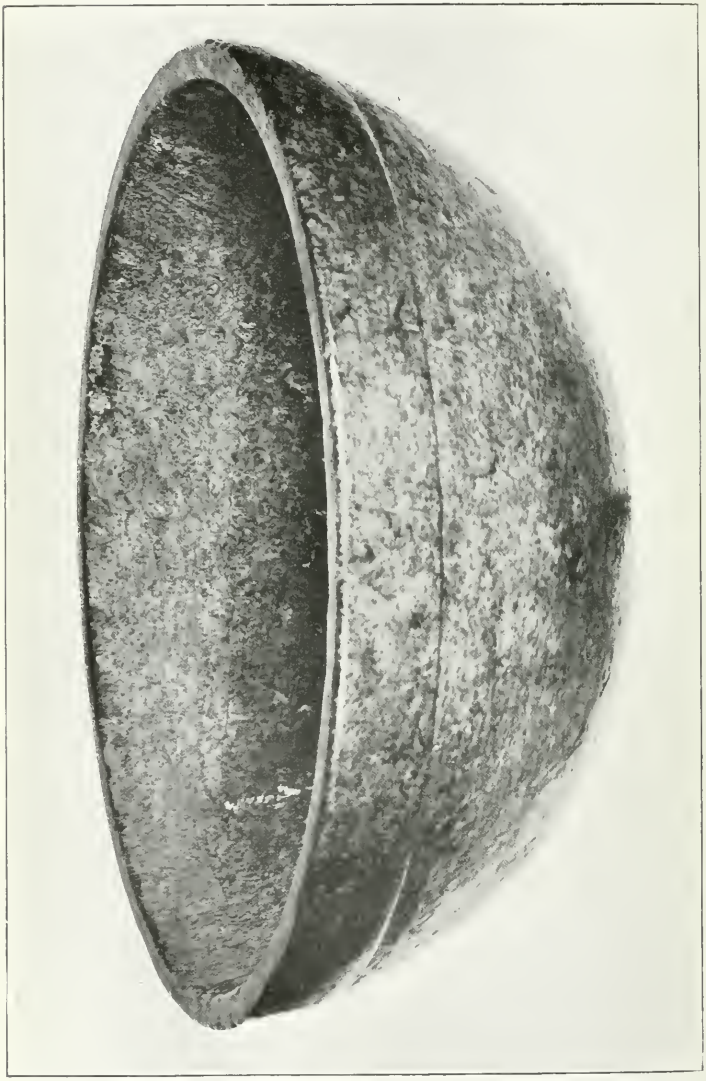


Figure No. 22062—Maple Knot Bowl.

Beauchamp states that no account of Indian forts would be complete without a quotation from the quaint history of David Cusick. He said, "The five families were compelled to make fortification throughout their respective towns in order to secure themselves from the devouring monsters. The manner of making the fort; at first they set fire against several trees as required to make a fort, and the stone axes are used to rub off the coals as to burn quicker. When the tree burns down they put fires to it, about three paces apart, and burn it down in half a day. The logs are collected to a place where they are set up around, according to the bigness of the fort, and the earth is heaped on both sides. A fort has generally two gates, one for passage and the other to obtain water."

Ladders.

Ladders were required in this fortification, and they were very ingeniously made. An inclined post with notches answered for a house or defensive wall.

Indian Ladder.

The most simple and primitive Indian ladder was the trunk of a tree, with the branches so lopped off as to make steps. A tree was frequently left in the middle of a fort and utilized as a ladder for observation purposes.

Cradles.

This is the Indian device in which their infants were found during the early months of their lives. It served for both cradle and baby carriage, especially the latter. In Canada these cradles were briefly described in 1611 and frequently after, but not at much length. The Algonquins of this province used wood in their manufacture. In other parts of Canada, skin, bark, and wickerwood cradles were in use. Some of the tribes made use of a wooden hammock suspended by the ends, others made use of net-work. Dugout cradles were used on the north Pacific Coast. The infant was placed in a little box of cedar. The region furnished the material and the adze habit, acquired in canoe excavation, made the manufacture easy. Carver, in describing one of these, says, "The women place their children, soon after they are born, on boards stuffed with soft moss such as is found in morasses or meadows. The child is laid on its back in one of these cradles, and, being wrapped in skins to keep it warm, is secured in it by small bent pieces of timber. By strings they fasten them to branches of trees, and in this position the child is kept for several months.

The board cradle of the Ontario aborigines was made from a thin rectangular board, which was frequently carved and gorgeously painted. It had a projecting foot-rest. The infant, wrapped in furs, was entirely encased, and over the face was bent a flat bow, frequently adorned with pendants. This frame was supported and carried on the mother's back.

Bridges.

An Ontario Indian, as a rule, troubled himself little about bridges, for being a good swimmer, he easily crossed any ordinary stream, and usually had little care about wetting his clothes. When he wished to spare these, a tree, fallen across the stream, gave him a free passage.

Ceremonial Articles of Wood.

A prominent place in their councils was always given to sticks or poles used for the better exhibition of wampum and presents. In the condolence council, the ceremonial wampum was hung on a stick, and removed and returned—a bunch at a time. The wampum sent out to call a council had a small stick attached, on which notches were cut, one for each day before the council. The recipient cut away a notch daily, and thus preserved the date.

Masks or False Faces.

Throughout North America masks were worn in ceremonies, usually religious or quasi-religious, but sometimes purely social in character. Page 47 represents an Iroquois mask from a Reserve near Brantford. It is quite characteristic of a large number of wooden masks made use of by the Six Nation Indians. In many cases the Medicine Men alone were masked, and at times in their secret conclaves the entire company were so decorated. In the west, animals' heads, both actual and mythical, were utilized in many of their ceremonies. The Iroquois mask represented gives a distorted mouth frequently utilized in the manufacture of such specimens as the one represented.

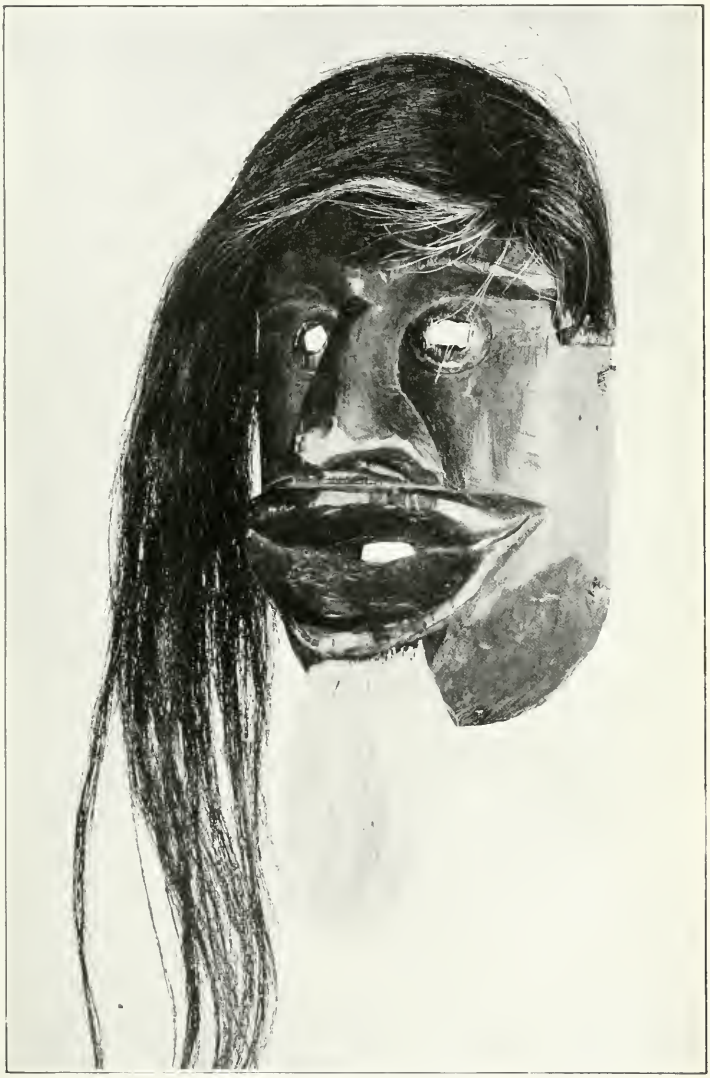
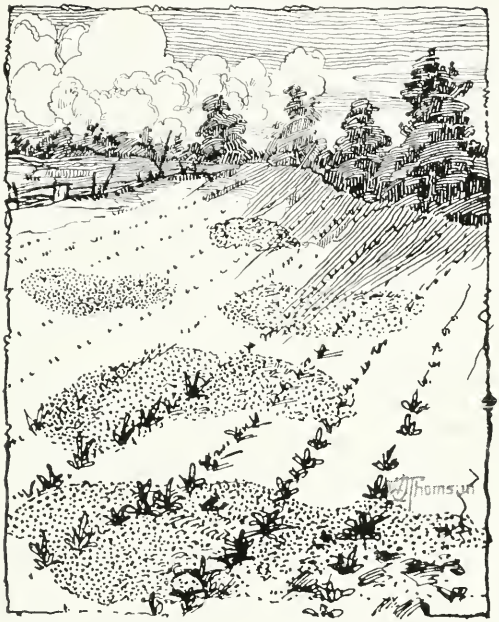


Figure No. 37628—Iroquois Mask.

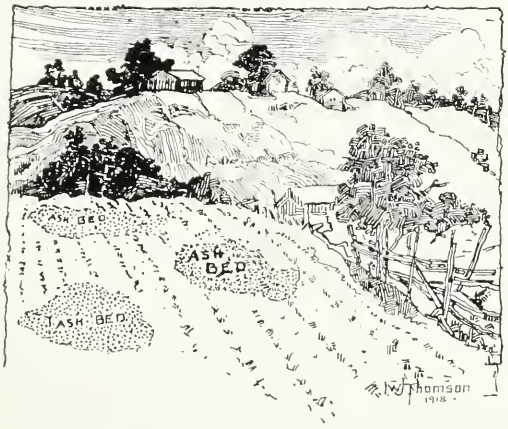
Carver, in describing the Chippewa Indians of the west, describes how out of two bent pieces of hardwood they manufactured a kind of forceps with which they extracted the hairs from their faces. Many other articles manufactured out of wood could be mentioned. The artistic ingenuity shown in their makeup is highly creditable to a semi-civilized race. Amongst these might be mentioned the canoe, dugout, snow-shoes, sledges for transportation, and many others. In conclusion we may well say with Beauchamp in "Aboriginal Use of Wood in N. Y."—"It is every way probable that the aborigines had many useful or ornamental articles of wood or of vegetable material, of which we have little idea. Some were laid aside when the more attractive ornaments of the white man met their eyes. Nearly all have perished, and many were never mentioned by early observers. A knowledge that some existed has been preserved by mere words in early vocabularies, but there is little reason to doubt that some things known to us in stone and bone had their counterparts in wood. Who has seen in New York a wooden bead, or hoe, or shield? Yet all were in use 300 years ago. That many other common things perished with them there is no reason to doubt. No trace remains of the grotesque house carvings of the Iroquois and few of their ingenious appliances in everyday life. The skill shown in some gives us a hint of how skilfully every forest need was met in the abundant supplies of a broad forest land."

The natural features of the township of Whitchurch are more varied than those of most of the sections of the county of York. The high land between Lakes Simcoe and Ontario, known as the Oak Ridge, runs almost diagonally from the north-west to the south-east angle of the township. Here the numerous tributaries of the Holland, the Rouge, the Don, and other streams have their rise. Numerous lakes are scattered along this height of land. In the neighbourhood of Lemonville there are numerous springs gushing forth the purest water any trout could wish to live in, and in the years to come much of the water from those extensive springs will be conveyed to Toronto for drinking purposes. In the early days it was a rugged, picturesque region, abounding in sylvan scenery and presenting many features of interest. In such a country we might well expect to find an extensive Indian occupation in the days preceding the conquest of the Hurons and Tionnontates by the Iroquoian confederacy. Such is the case—numerous Indian remains have been unearthed from time to time in various parts of the district, indicating that in prehistoric times it must have contained a large aboriginal population. By far the most important of these village sites is the one situated on Lots 14 and 15, in the 6th concession (the property of Mr. Murphy)—known and spoken of by the oldest inhabitants as "the old Indian fort." It is situated nearly in the centre of the township. The early settlers examined it and spoke of it with superstitious awe, looking upon it as the abode of a wonderous people. It was then covered with bush, yet still showing plainly the extensive clay elevations used for their palisades. Fortified village sites are found in many parts of the province. The simplest defences were those furnished the Indians by nature. High elevations as well as the plain beside some stream were utilized, with a dense forest surrounding them. This fort is that known as a "hill fort," and resembles in many respects the Shaw-Wood fortified village site described in last year's report. The clay elevation extends along part of the northern side. On its western front, facing the 6th concession, it is well marked nearly all the way for over 779 feet. It runs slightly over the top of the ridge part of the distance, where it is 10 feet below the brow of the hill. On the southern side, a short distance above and west of Mr. Murphy's house, it sweeps in an east by south-east direction, and is in some places several feet in height, and in others less. When it runs into the cultivated fields its identity has been obliterated. It includes an area of about 7½ acres. When visited, most of this was planted with corn just coming up, and the sites of about a dozen bark houses could be discerned. The darkened sandy soil, intermixed with broken pottery and other broken artifacts, indicates clearly their location. A very extensive moat, now obliterated, extends from the south-east to the north-west corner. Upon the brow of the hill at its north-west angle, and outside the

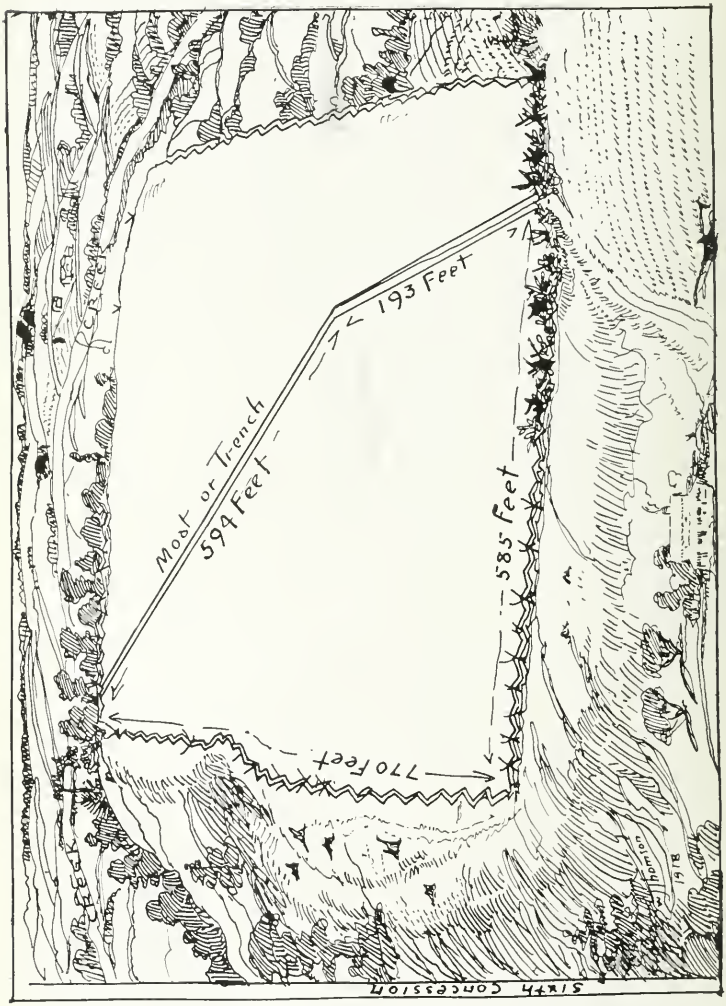
fortification wall, is a very extensive burial site immediately opposite the west side of the fort, and on the other side of the valley there is an extensive burying ground. In this ground, as outside the fort, the burials are in single graves. Some 60 feet within this angle, Mr. Murphy, in blasting out a large pine stump, from which the tree had been taken over half a century before, discovered a skeleton underneath, the bones of which, now in the museum, were in a very much decayed condition. The single grave mode of burial would probably indicate an Algonquin origin of the occupants of this site.



Indian Fort at Whitchurch. View in cornfield, looking northwest, showing ashpits.

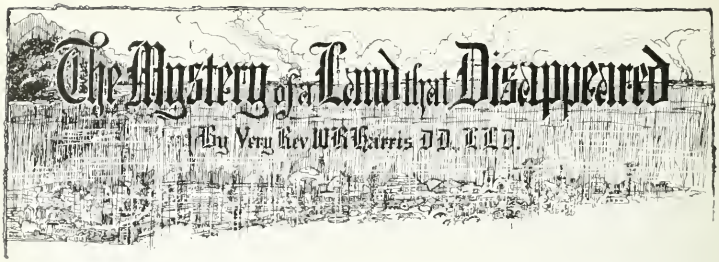


Indian Fort at Whitechurch. Cornfield, looking southeast, showing ash beds.



Fortified Village Site, Whitchurch.

Indian Fort. Village Site at Whitchurch. View from road, showing remains of earthworks.

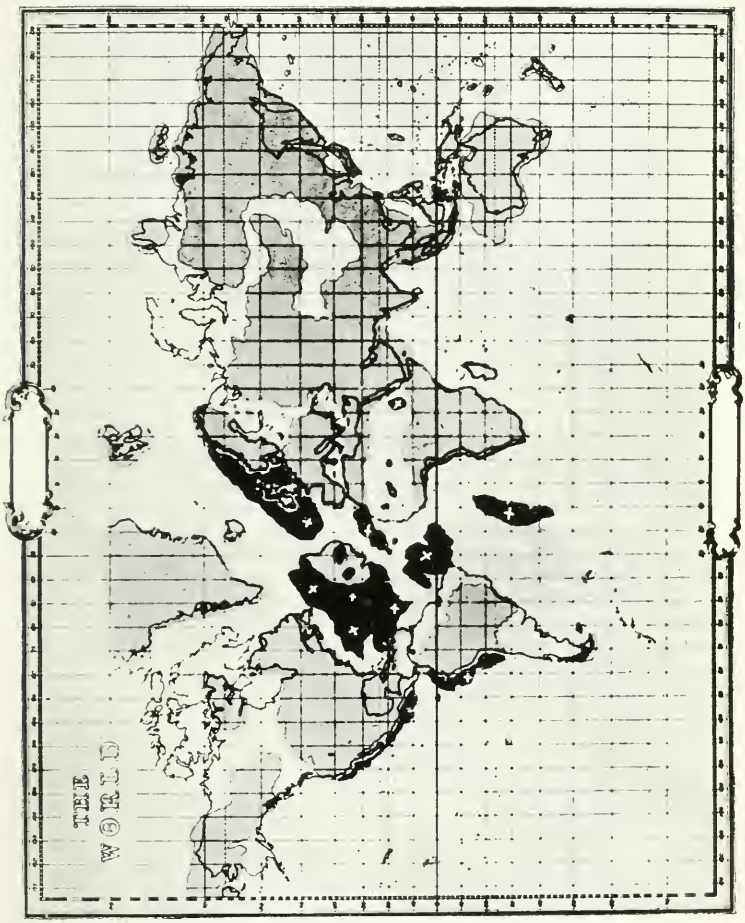


"We must know when to doubt, when to feel certain, when to submit. Who fails in this understands not the force of reason. There are those who offend against these three rules, either by accepting everything as evidence for want of knowing what evidence is: or by doubting everything, for want of knowing when to submit: or by yielding in everything, for want of knowing when to use their judgment."—*Pascal, "Pensées."*

Preamble.

From the triumphant hour when Columbus, accompanied by copper-coloured and eagle-plumed men of the new world, stood before Ferdinand and Isabella, speculation began among the learned and the curious over the origin of the people inhabiting the mysterious western lands. The same elusive problem has challenged the attention of scholars and scientists for four hundred years and is to-day pleading for solution.

The literature on the subject is enormous and is, spasmodically, increasing in bulk and complexity. Indeed, if all the books and pamphlets that have been written on the origin of the American Indian could be resuscitated and collected, "the world itself," to repeat the words of St. John, "would not be able to contain them." The mists which obscure the beginnings of aboriginal man in America impair our vision to-day, and at best we have only the consolation of the blind man of Bethsaida, who saw "men, as it were trees, walking." No one, however omnivorous his reading, may hope to study and digest all the home and foreign literature bearing on the perplexing question. At most he can but cull from the confused mass a few important facts decisive of a partial solution. In a brief article such as this it is impossible to do more than skim the surface of views and theories of great importance. Any attempt to reconcile the conflicting opinions and hypotheses on the abstruse subject would involve us in hopeless confusion. In this article we will endeavour to keep the question free from obscurity, avoiding when we can, technical words and expressions. We will follow what appears to be the line of least resistance, and advance a theory which, in the attempted solution of this intricate problem, presents the authority of *greater probability*. If it were possible to reconstruct ancient American history to-day, to place it on a solid foundation, and to reunite in uninterrupted chronological order the cosmographic fragments found in Maya hieroglyphic writings, in Hondurian Katuns, and in the narratives of Spanish and Indo-Spanish historians, much light might be thrown upon the origin of a mysterious race and on a land that disappeared in primordial times.



The land that disappeared—marked black.

A Retrospect.

When studying the progress of civilization we notice that everywhere the knowledge of man increases with the enlargement of the territory open to his researches. Scientific men assure us that, in proportion as science is expanded by new discoveries and new demonstrations, the field of knowledge is also expanded.

With the discovery of America all departments of knowledge experienced a change and a forward impetus of which the memory of our day is barely conscious. If we study carefully the publications of that wonderful epoch and compare the exploits, explorations and achievements of the Spaniards recorded by Peter Martyre de 'Anghiera, Oviedo, Cortes, Dias, Gomarra and others, with the knowledge and the results of the discoveries of the men of our own times, we will be surprised at the extent of their knowledge and will discover in the works of these early writers the germs of the most important physical and physiographic truths which occupy the thoughts of the men of the twentieth century.

The learned men of the sixteenth century pondered over the origin and migrations of the aborigines of the newly found continent and the filiation of their languages and dialects; they studied and catalogued the plants and animals of the lands; they disputed over the trade winds and the pelagic currents. They endeavoured to find out the cause of volcanic eruptions and their relationship to earthquakes. They mapped and delineated whole regions, named mountains, rivers and valleys and left us an invaluable library on original man and savage nature. In this incomparable collection are included dissertations on botany, geology, mineralogy, zoology, ethnology, and on tribal manners and customs, interspersed with characteristic anecdotes and bits of folk lore.

The wonderful discoveries, the dual conquests in the intellectual and physical worlds were more worthily appreciated by the men of these times than we dream of to-day. From the pen of a contemporary of Columbus we learn with what a profound sentiment of admiration the intellect of that time accepted the close of the fifteenth and the whole of the sixteenth centuries as eras full of the marvellous. "Every day," wrote Peter Martyre de 'Anghiera, "brings us new prodigies from this new world, from the antipodes of the west, which a certain genius named Christopher Columbus has discovered. Our friend, Pomponius Loetus, cried with joy when I imparted to him the first news of this astounding discovery. 'Who now,' he exclaimed, 'can cease to wonder over the discoveries attributed to Saturn, to Ceres and Triptotemy, or who can deny that the Phenicians reunited the wandering tribes and *founded great cities in far distant lands*.' It was reserved for our day to have enlarged the horizon of thought and to see for ourselves the possibility of new and great achievements."[7]

Brief Review of Pre-Columbian Culture.

In 1915 Professor Hiram Bingham, Director of the Yale Peruvian expedition, visited the ruins of a megalithic city of ancient Peru, two thousand feet above the Urabamba River. On returning to the United States he wrote an account of his explorations. He tells us of the remains of a city that was built probably a thousand years before the Redemption; that the ruins are of extraordinary interest, of great magnificence and bulk, and that the ancient city included temples, palaces and public baths, and about one hundred and fifty stone houses. The great blocks of

[7] "De Insulis Nuper Repertis." Preface VI.

A splendid shawl-like garment from Peru.

Fine pre-Incan poncho, with typical designs.

white granite, some of them twelve feet long, are so cut and jointed that it is sometimes difficult to say where the joinings are. Though no mortar or adhesive substance was used the walls have withstood the elements for at least two thousand years. Further on in his narrative Mr. Bingham adds: "The Peruvian pottery of these ancient people bears a striking resemblance to that of ancient Greece. . . . They reached a high degree of skill in the manufacture of textiles, and, from the wool of the domesticated alpaca, wove excellent cloth. We found surgical tools and instruments for trepanning made of obsidian. They tamed the llamas and alpacas, by the aid of which they transported, for hundreds of miles, stones weighing fifteen tons. In architecture, engineering, pottery, and textiles, they equalled the ancient Babylonians."*

The work that these early builders accomplished is beyond our comprehension. Nor may anyone explain how it was done. Huge rocks that were quarried and transported with great labour and by the combined efforts of hundreds of men were fitted together with wonderful nicety. "To say there are seams too fine to insert a knife edge," writes Mr. Bingham, "leaves the story only partially told."

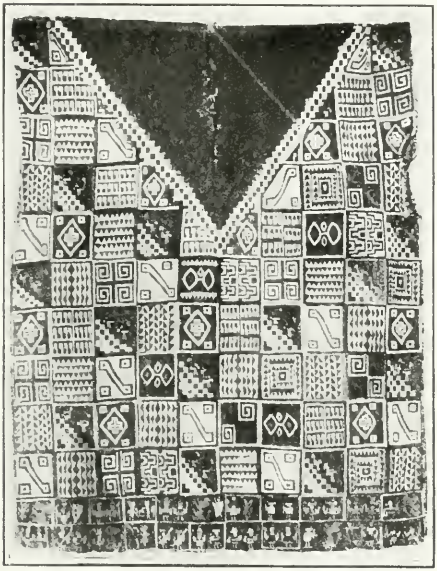
When Dr. George K. Cherri, the naturalist, returned in 1917, from his explorations in the regions of the River of Doubt, Brazil, he informed us that, when he visited the old Inca capital of Cuzco, Peru, he found abundant evidence of a great and ancient civilization. He also passed some days examining the pre-historic fortifications of *Ollanytambo*, "where," he writes, "great blocks of granite, six feet by twelve, have been transported hundreds of miles to the summit of a hill so steep that I doubt if a goat could climb it to-day." The Spanish historian, Garcillaso, in his fifth volume, says that many of the stones in the fortress of Sacsahuanan, Peru, are of great size, and that a Spanish priest, who visited the cyclopean structure, accompanied by a military officer, was so amazed at the massiveness of the blocks that he asked his companion "if it were possible for men to raise and place in position the stones without the aid of the devil." One of these stones which was lifted to a height of sixty feet weighs one hundred and seventy tons.†

Irrigation and Agriculture.

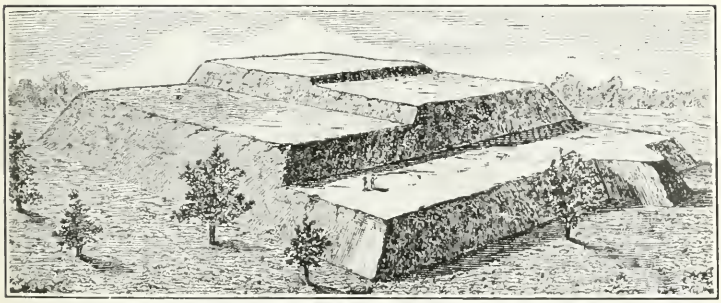
Professor O. F. Cook, who, in 1915, explored the region around Ollantayamba, Peru, and studied the agriculture of the early people, informs us that "the ancient Peruvians were probably the most industrious and highly organized people in history. *Centuries* before Columbus discovered America they had developed an intense agriculture." ‡

Peru reached a stage of reclamation projects long before America was discovered by Europeans. "Our own undertakings," Mr. Cooke assures us, "sink into insignificance in the face of what this vanished race accomplished (p. 476). The construction of the ancient channels for irrigation was an enormous undertaking, perhaps not equalled in any other part of the world, and from these aqueducts alone we have the right to conclude that agriculture and horticulture must have attained a high development." Garcillasso, in his history, speaks of one aqueduct one hundred and twenty leagues long, with a depth of twelve feet, and of another irrigating canal fifty-five leagues in length.¶

* "Explorations in the Land of the Incas." Washington, 1916.
† Prehistoric Man, p. 264, Scott Elliot.—Seely & Co., London.
‡ Staircase Farms of the Ancient Peruvians." National Geographic Magazine, 1916.
¶ The old Spanish league is equal to 2.41 of our miles.



A handsome poncho in brilliant colors from old Peru.



The Great Cahokia Mound near St. Louis, Mo., U.S.A.

Writers of large historical works on America in early Spanish times, such as Garcillaso de la Vega and Cieza de Leon, may be suspected of exaggeration for effect, but surely no such suspicion may rest on the names of eminent professors associated to-day with our great universities and national historical societies. Among these distinguished men is Professor O. F. Cook, who tells us that: "The ancient Peruvians had the most complete social organization of which we have any record. These people performed a lasting service for the whole world" (p. 533); and Scott Elliot, who writes: "In both these states (Mexico and Peru) copper seems to have been known. In Peru, under the Incas, metal work was very ingenious. Gold, silver and bronze were skilfully managed, beaten out, or worked up into filigrees. There were images of singing birds in gold and a profusion of gold plate."* We can now understand why Piedrahita, Bishop of Grenada, writes in his history that he saw "elegant articles of filigree fashioned into figures of eagles, toads, snakes, and into ear-rings and bracelets." The philosopher, Carli, after examining articles unearthed near Cuzco, says that: "It is certain that French mathematicians have not been able to understand how these ancient people succeeded in making statuettes of gold and silver, hollow and thin, and of one cast."†

Of the advanced material civilization of Central America, Peru, Colombia, and neighbouring lands, there cannot now be two opinions. People who could handle huge blocks of stone, determine the precession of the equinoxes, calculate the periods of the moon and stars, build great pyramids and substantial houses in stone, invent a hierographic and an ideographic writing, reach a high level in ceramic, metallurgic and lapidary arts, dig great irrigating canals, construct metalled highways and excel in agriculture, were, for their time, beyond contradiction, a high barbaric, if not a civilized race.

We are all familiar with W. H. Prescott's flamboyant description of the barbaric splendour of Montezuma's palace and of the civilization of the Toltecs and Aztecs, yet, overlooking his exuberant imagination and the temptation to exaggerate on the part of his Spanish authorities, we cannot charge his witnesses with deliberate misrepresentation. Nor does the fact that the Abbé Brasseur de Bourbourg is at times too greatly influenced by Maya myths and legends invalidate his proofs and arguments supporting the social culture of the Mayas. We cannot suspect a conspiracy of deception among all the Indo-Spanish and Spanish writers and historians of Mexico, Central America, and Peru, during the sixteenth and early seventeenth centuries. In their ideas and in the expression of their ideas they differed one from the other, but in their admiration for the civilization, even in its decay, of the Mayas and the Toltecs or Aztecs, they were unanimous.

The Indo-Spanish historian, Fernando de Alba Ixtlilxochitl (pronounced Ish-til-shot-itl) in the Fourth Relation of his history says that "with tools made of tin and copper they cut not only metals but precious stones. They fashioned metal of gold and silver in a very delicate way. Their metallurgists so mixed metals that feathers of birds and scales of fishes would be alternately of gold and silver. With tools of silver and flint, called *quijarros*, they carved images of their gods out of alabaster and onyx. They painted, true to life, landscapes, birds, animals, fishes and lizards. They had sculptors, carvers, painters, mosaists, metallurgists and moulders to give shape to stone, clay and metal. Their jewellers and lapidaries could imitate all manner of plants, animals, flowers and birds. From vegetable and mineral dyes they could imitate any colour, and from the hair of animals and feathers of birds, they made feather cloth."

* "Prehistoric Man and His Story," p. 263.

† "Lettres Americaines," Vol. I, p. 21.

Lizana says that the ancient Mayas built four great roads through Yucatan, Chiapas and Tabasco, and that traces of these highways remained till the time of the Spanish conquest. Furthermore, Désiré Charnay, in his "Ancient Cities of the New World," informs us that he discovered remains of a concrete road from Izmail, Yucatan, to the shore of the sea facing the sacred island of Cosumel. The immense ruins which the Spaniards discovered in the regions lying between the Gulf of Darien and the Equator, particularly in the territories of Cartama and Caramenta and the basin of the upper Magdalena; the roads metalled with great stones, larger even than those in the walls of Cuzco, all these, with other existing traces of an ancient civilization, prove the population and strength of a race which, at the time of the Conquest, was descending to savagery.*

More plants were domesticated in Peru, than in any other part of the world. Domestication of a large series of crop plants, such as cotton, Indian corn, potatoes, cassava, beans, peanuts, tobacco, quinoa, and the Guilielmo palm, dates back to immemorial times. Botanists tell us it demands a very long time to cultivate and artificially propagate a wild plant into a domestic.

Testimony of Eye Witnesses.

There are seventy thousand square miles of territory in Central America, Chiapas and Yucatan, where the traveller is seldom out of sight of some monument, pyramid or group of buildings, the remains of an unknown and pre-historic race. The explorers and travellers, Palacio (1567), Del Rio (1787), Dupaix (1807), Stephens and Catherwood (1840), Désiré Charnay (1880-6), the Abbè Braseur de Bourbourg (1854), Squier, Waldeck, and others, who travelled through these mysterious lands, testify to the excellence of the workmanship of the early builders and contend that these edifices, built of large stones, laid, in many instances, in mortar, are equal in point of finish to our best modern masonry.

On some of these buildings, like the "Casa Kabah" of Copan, words fail to give a clear notion of the work, for what definite conception is conveyed when it is stated that in a single continuous facade, 20,000 pebbles were used, fashioned into varied special shapes, and each fitted in to represent some individual part of the human face, some figure or geometric design, and all placed together with such skill as to give the impression of an unbroken whole.

Nor can any man say how old these ruined structures of Peru, Colombia, Mexico, Yucatan, Honduras, Nicaragua and Guatemala are; when they were built, how long they were inhabited, and when and why they were abandoned.

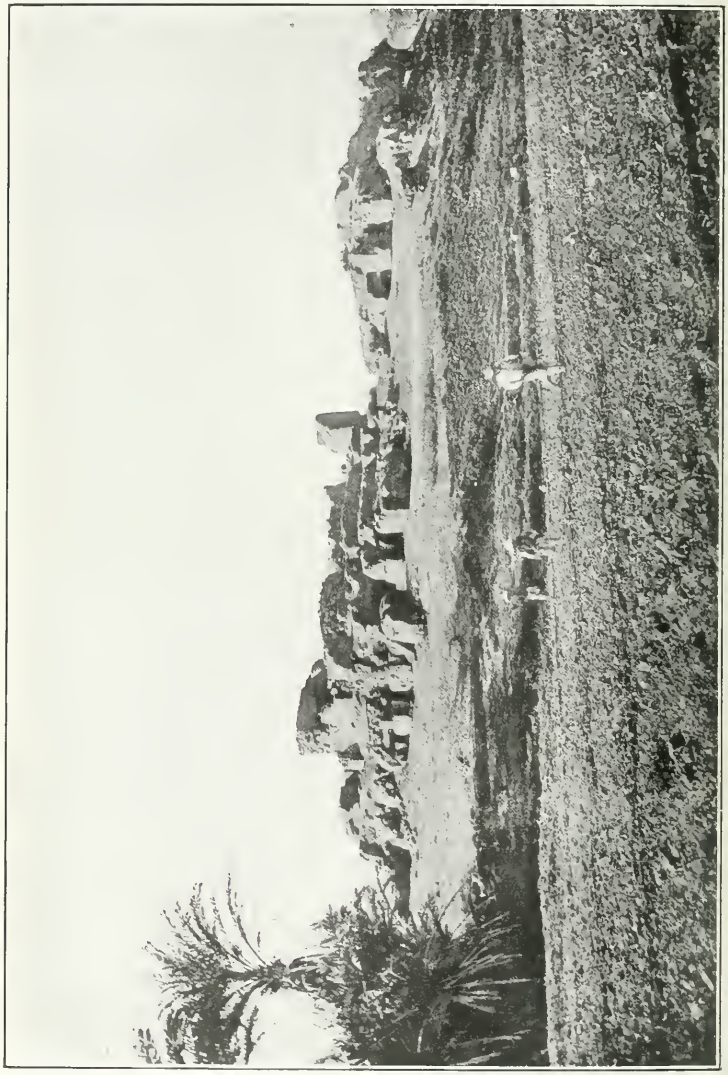
Age of Pyramids and Buildings.

"Nations melt from Power's high pinnacle, when they have
Felt the sunshine for awhile, and downward go."

At the time of the discovery of America, the Peruvians, Mayas and Mexicans had lost the civilization of their ancestors and were descending to savagery. In spite of the fact that the Spanish conquerors found the Mexican tribes the most enlightened of all American Indians, yet these tribes had fallen sadly away from the civilization of the Toltecs and the pre-Columbian Mayas. "The cult of Mexico," writes Orozco of Berra, "was awfully hideous. It demanded a continuous shedding of blood." †

* In the fortress of Cuzco, Peru, are huge blocks of stone, 38 feet long, 18 feet wide, and 6 feet thick, brought from a quarry twelve miles distant.

† "Historia Antiquia de Mexico," Vol. IV, L. III.



Ruins of the Convent—Pachacamac—Peru.

Foul idolatry, gross superstition, cruel wars and cannibalism threatened the people of Mexico and Central America with extinction, or a degeneracy descending to the level of the Australian bushman. The ferocious and ruthless military confederacy composed of the Aztecs, Acoluas and Tepanecas (*Ixtlilxochitl, "Historia Chichimeca." Kingsborough IX,* 219), meant a war of extermination or servile subjection for all other tribes and, in the end, savagery for all. A. F. Bandelier, the greatest English-writing authority on Mexican pre-historic civilization, Charles F. Lummis, author of the "Spanish Pioneers," and Susan Hale, writer of books of travel, agree in stating that, at the time of the Spanish conquest, the tribes of Mexico and Yucatan were reaching the bed-rock of savagery.

Age of Man in America.

Then, when and by whom were these great pyramids and splendid buildings constructed? If it be true, as Hubert H. Bancroft holds, in his voluminous work, "Native Races of the Pacific," that the civilization of Central America antedates all eastern civilizations, then we may have to go back very far to the time when the great structures were erected.

Colonel Galindo, the explorer, also contends that America is the true cradle of civilization, and Le Noir is of the opinion that primitive American civilization is more than three thousand years old.* Captain Dupaix, in his book, says some of the buildings of Central America antedate the deluge. He states that in one of the courts of Copan he found vegetable mould nine feet deep, the beginning of which dated from the final abandonment of the buildings. In another court, at Palenque, the venerable traveller and artist, Count de Waldeck, in his "Voyage Pittoresque dans le Yucatan," tells us he measured trees that were nine feet in diameter, but this would be no proof of the age of the buildings, for other trees may have lived and fallen before Waldeck's trees began to exist. The Count also mentions that in one of the halls the stone tortoises, raised in relief on the granite floor, were worn down to almost obliteration by the feet of worshippers who were probably barefooted.

Charles Darwin, the naturalist, says he found on the Island of San Lorenzo, off the Peruvian coast, *eighty-five feet above the sea*, shells that had long lain dead at the bottom of the sea. Continuing his excavations, he came across ears of Indian corn and a piece of decayed *cotton string*, resembling the twine he found with mummified bodies in the ancient burial grounds or *Huacas* of the Peruvians. He adds: "It is almost certain that they (shells, corn, etc.) were accumulated on a true beach upraised eighty-five feet, and upraised this much since *man inhabited Peru*." †

The remains of primitive art and the impress made by man on nature predicate his residence in America to be coeval with the oldest events of history. The kitchen-midden seen by Sir Charles Lyell at the mouth of Altamaha River, flowing into the Atlantic, was ten feet high and covered ten acres of ground. "How many years," asks Brinton, "would it require to accumulate such a mound of human offal, of bones, shells, and charcoal?" ‡

The ruins of Mitla, State of Oaxaca, Mexico, are to-day as they were when the Franciscan friar, Toribio de Benaventa, better known as *Motolinia*, visited and

* "Antiquités Mexicaines," Vol. III, p. 73.
† "Geological Observations," p. 260. Appleton & Co., 1897, 3rd ed.
‡ Myths of the New World," p. 37. Holt & Co., N.Y., 1886.

Stela I. Piedras Negras, Guatemala.

described them in 1529. But Désiré Charnay says he discovered, at Mitla, indications of an earlier architecture altogether superior to that of the existing buildings.*

Early in 1916 Mr. S. S. Morley left the United States with a party organized for archæological explorations in Yucatan. At Tuluum, on the east coast of Yucatan, he photographed and took measurements of a hieroglyphic monument carrying a Maya date corresponding to our year 290 A.D. At Uzxactum the party found the remains of a large city and a monument belonging to Cycle 8 of Maya chronology, bringing the time back to 50 A.D.

In South America, as in Mexico, Yucatan, in Central America, everywhere, we find the remains of a prehistoric civilization, a civilization so old that we cannot, even approximately, estimate the era of its decline.

"Near these regions," says Theodore Roosevelt, writing of the forest wealth around Paramo de las Pappas, State of Columbia, South America, "civilization after civilization has sprung up, flourished and withered away to nothing during the dim ages before the Spanish sea-faring adventurers first crossed the western ocean."†

In 1916 the American Museum of Natural History sent Professor Leo E. Miller to the lands around the head-waters of the Magdalena River in search of specimens of rare birds and their nests. Returning, in 1917, he tells us that in the forests of these unfrequented and uninhabited regions he found the remains of ruined temples, altars and monoliths, stone images from two to eight feet high, and "the remnants of works of art which have yielded to decay with the passing of the centuries." Continuing, he writes: "Just how to account for the advance of civilization to a point where art and architecture were encouraged, and which supported a well organized form of government, and then to explain its complete extinction, is a question we cannot answer."

Dr. Unsolding, Curator of the Paraguay National Museum, visited, in 1916, the remains of the ancient city of Tiahuanaco, Bolivia, and the ruins of a city recently discovered at Tacumba, Paraguay. He claims they antedate the Christian era and prove the extent of ancient American civilization.

Admitting then, with Professor Cooke, that there was in America, at least two thousand years ago, a civilization not inferior to that of ancient Egypt and Assyria, we are confronted with two problems inviting a solution:—

1. From what land did these ancient people come?
2. How did their civilization originate and develop?

"The Church is committed to no theory as to the age of the world or its inhabitants."
—"Evolution and Dogma," XXV, J. A. Zahm, Ph.D., LL.D., C.S.C.

Age of the Human Race.

While Professor Cooke admits that American civilization existed two or three thousand years before the time of Columbus, he does not, nor does any paleontologist, undertake to say how long man has existed on the American Continent. If we can determine, even approximately, the beginning of man's appearance on our earth, it may assist us to explain how human beings found their way to America in the remote past.

If, according to Professor Keith, who has written many books and papers on anthropology, man was upon the earth 350,000 years ago, then he was here in pleistocene time, the period when, according to recent authorities on oceanic changes, America was united to Europe and Africa by land. "Ever since the fact of the

* "Les Anciénnes Villes de Nouveau Monde," p. 63.
† Scribner's Magazine, May, 1917.

antiquity of man was first accepted by European geologists," writes Alfred Russel Wallace, "each fresh discovery tends to extend that antiquity. The real mystery is not that the works or remains of ancestral man are found throughout the pleistocene period, but that they are not also found throughout the pliocene and also among some miocene deposits."* Many years before Wallace's studies in paleontology, Sir Charles Lyell wrote: "But that the growing power of man may have lent its aid, as a destroying cause of pleistocene animals, must however be granted."†

Henry Fairfield Osborn, in the introduction to his "Men of the Old Stone Age," tells us that: "According to my view, man, as such, chiefly evolved during the half million of years of the Pleistocene epoch." Further on he adds: "We have an unbroken record of continuous habitation (in Europe) from a period as remote as 100,000 years." Writing of the "cave finds" in France and Spain, he adds: "The earliest of these undoubted handiworks occur relatively late in the Pleistocene, namely, about 125,000 years ago." ‡

Dr. Smith Woodward says that the Piltdown brain case, discovered a few years ago in England, belongs to early pleistocene time, that is to say, that man was upon the earth three hundred thousand years ago. Nearly all paleontologists and geologists admit that man lived in the pleistocene age. Now if it can be shown that in early or late pleistocene times a land connection joined North America to Europe and to West Africa, then, possibly, it can also be shown that man at one time lived on this now submerged land and used it as a bridge, as did animals, to pass from continent to continent. Sixty years ago the possibility of a land connection between Europe and America was denied a hearing by the scientific authorities of the time, but the immense advance that has been made in the study of botany, zoology, ichthyology, reptiles and amphibians has, to-day, placed beyond successful contradiction the necessity of such a connection. When, seventy years ago, D'Orbigny argued in favour of a land bridge across the mid-Atlantic to enable certain species to cross the ocean by travelling, along a continuous shore line, his contention attracted little interest among the learned men of that time.• To-day nearly every zoologist of repute admits that it is impossible to explain the existence of identical species of fauna in Europe and America, without admitting the existence in early times of land in the Atlantic connecting the two continents. So that now we are driven to acknowledge that the myths and traditions of the Carthagenians, Egyptians and Athenians, of a submerged continent were founded on a reality.

Traditions of the Ancients.

Long before the time of Columbus there was handed down from remote times a belief in the existence of a great island or islands far out in the Atlantic Ocean, known as Antilla, or the Antilles. The tradition of a lost continent always lingered

* "World of Life," pp. 246-247. Bell & Sons, London.

† Antiquity of Man," p. 418, 1873 ed.

‡ Professor Ernest Heinrick Haeckel, originator of the theory of "fundamental biogenic law," in his "Natural History of Creation," goes back one hundred millions of years for the beginning of life upon the earth. His geological chart of the earth starts with the *Laurentian*, millions of years ago, and is continuous up through the *Cambrian, Silurian, Devonian, Carbon, Permian, Trias, Jura, Chalk, Eocene* (280,000 years ago), *Miocene, Pliocene* (the three forming what is known as the Tertiary Age); *Glacial, Post Glacial*, and *Recent*. Haeckel's first man appears in the Post Glacial era, say 40,000 years ago. The word Pleistocene used by Prof. Osborn and others was a term introduced by Lyell in 1839, for later Pliocene. It is now understood to mean the older of two divisions of the Post Tertiary or Quaternary period hundreds of thousands of years back in the palæolithic age.

• "L'homme Americain," p. 411.

with the people inhabiting, in early times, both shores of the Mediterranean. The Carthagenian and Phenician navigators were known to have visited strange lands lying beyond the Canary Islands. Unless there was some communication, in the thirteenth and fourteenth centuries, between Europe and America, it is difficult to explain how, as Muratori has shown, Brazil wood was entered as a taxable commodity at the Port of Modena in 1306; or how Andrea Bianco's map, preserved in St. Mark's Library, Venice, and constructed in 1436, places an island in the Atlantic and calls it *Brazile*.*

Plutarch, in his "Life of Solon," informs his readers that when the Greek sage visited Egypt—six hundred years before the Redemption—Egyptian priests, whom Solon had met at Sais and Helipolis, said that nine thousand years before their time a great continent called Atlantis existed. That it was peopled by a commercial and military race with whom the ancient Lybians and those living in the basin of the Mediterranean traded. That, in time, volcanic eruptions, great earthquakes and inundations of the sea overwhelmed it and it disappeared for all time.† "This narrative of Plato," writes the French astronomer and historian, Bailly, "bears all the marks of truth. It is not a fiction invented to amuse and instruct his readers."‡

Perhaps the strongest proof that Plato did not invent, but accurately quoted Solon is that, six centuries before his time, Homer, who was well informed on the geography and customs of foreign people, refers in his Odyssey to Atlantis and the islands of the sea.¶ Christian Bunsen, whose vast erudition constitutes him an authority, reluctantly admits the narrative of Solon to be authentic and that possibly an Atlantis once existed.§

Adverting to the vitality of a tradition, it is of importance to remember that the word *Atlas* is found in the writings of nearly all the authors of ancient times, and that the land and people of Atlantis are mentioned as existing in the Atlantic Ocean. In the classic authors of Greece and Rome mention is often made of a Saturnian land lying towards the setting sun, distant many stadia from the Pillars of Hercules (Gibraltar).**

Moreover, a belief in the existence of this land in the middle of the Atlantic, and its submergence, due to violent seismic convulsions, was held by scholars even unto the fifth century. Proclus, the great teacher of the Neo-Platonic school at Athens, a man familiar with the science and knowledge of the ancients, tells us in his "Commentaries on Plato's Timæus," that: "The famous Atlantis exists no longer, but we can hardly doubt that it did once, for Marcellus, who wrote a history of Ethiopian affairs, says that such and so great an island once existed, and that it is evidenced by those who composed histories relating to the eternal sea, for they relate that in this time there were seven islands in the Atlantic sea sacred to Prosperpine; and three of immense magnitude were sacred to Pluto, Jupiter and Neptune; and besides this the inhabitants of the Island of Poseidon preserved the memory of the prodigious magnitude of an Atlantic island as related by their ancestors, and of its governing for many periods all the islands on the Atlantic sea."

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* Cardinal Wiseman's "Study of Languages," p. 86.

† "Plato's Timæus," translation of Victor Cousin, Vol. XII, p. 3.

‡ "Essay on the Origin of Fables and Ancient Religions," Intio., p. 11.

¶ Homer, Book I, Part II, Bryant's translation.

§ "Egypt's Place in the World's History," Vol. IV, p. 421.

** Rock of Gibraltar, the Calpe of the Ancients, was the Abyla or "Apes Hill," the opposite promontory, the western end of the then known world.

The same author writing of "a western continent," says: "It is several thousand stadia from Oxygia."*

Diodorus Siculus, the Greek historian, who lived one thousand five hundred years before Columbus discovered America, attributes the discovery of America to the Phenicians, and describes it as a land where the aspect of the country is varied by very high mountains and where the temperature is ever soft and equable. Then he says: "Over against Africa was at one time a very great island, many days' sail from Libya (Africa), which was destroyed by a tremendous convulsion of nature or by successive convulsions." It is possible that the supposed submergence of Atlantis occurred much later than the Cretaceous period of the Mesozoic age, for on Atlantic islands, types of animal and vegetable life were found belonging to the Pleiostocene period, the beginning of the quaternary age, when man is known to have been on earth. Now, if the traditions of the Egyptians, Grecians and Carthagenians are not mere figments of imagination, there must have been a continent, a very large island, or many islands in the Atlantic inhabited by men and women. But all oceanic islands at a distance from their nearest continents were, from historic times, uninhabited. In the Atlantic Ocean the coral Bermudas and Barbadoes, the volcanic Azores, the Falkland Islands, St. Helena, and Tristan d'Acunah, were all uninhabited. Even New Zealand was unpeopled until A.D. 1400. In the entire Atlantic the Canary Islands alone were inhabited, and when in the thirteenth century the Spaniards discovered them, the fair-haired and blue-eyed tribes of the islands could tell nothing of their origin or where they came from. They called themselves Guanches and told the Spaniards that God had placed them on the islands, and, since then, had forgotten all about them. They believed they were the only people living upon the earth. All the islands of the Pacific lying west of South America—Juan Fernandez (Robinson Crusoe's island), Massa Fuera, Galapago and smaller islands were uninhabited. So we may reasonably conclude that the first inhabitants of America were natives of a continent.

Assuming then the existence, at one time, of a great inhabited land in the Atlantic, many of the people must have escaped to America, Europe or Western Africa, and re-established themselves on the shore-lands, originating and perpetuating the tradition of a great cataclysm, for how otherwise can we account for the survival of the memory of Atlantis in Europe, Africa and America.

On the continent of America the countries which have furnished us the most invaluable and illuminating information of their aboriginal people are Central America, Yucatan and Mexico. These are the only lands where were found original documents (codices), inscriptions, and allegorical figures chiselled on the monumental walls of civil and religious edifices or on monoliths of aboriginal and peculiar character.

The earliest of these codices record the memory of three great catastrophies which, at separate times, in the history of their races visited their ancestors, and the tradition of which was perpetuated to the time of the Conquest.

The chiefs of the tribes peopling the islands of the Caribbean Sea, at the time of the discovery of America, repeated with entire unanimity that they had heard from their fathers and from very old men that the Islands of the Antilles (West Indies), great and small, belonged, in remote times, to the main land, from which they had been detached by great earthquakes, volcanoes, and inundations of

*A Roman stadium is almost an English furlong. Oxygia, the island where Ulysses was detained for years by Calypso. It was the name of an island said by Homer to have existed in the middle of the Atlantic.

the sea.* The history of a great cataclysm is also recorded in the "Hun-yecil," a Maya record printed in Maya characters, with translation into Spanish by Aguilar.†

The scholarly Von Humboldt was at first disposed to regard these national memories of a great cataclysm as cosmogonic myths which originated in India, were continued among the Persians and Chaldeans, and finally became imbedded in the ancient cyles of the Etrurians. But when he began to study more attentively the Mexican calendar, he expressed doubts as to the accuracy of his opinions and equired if, after all, the "suns" or ages of the Mexican calendar did not represent certain pre-historic remembrances of great catastrophies which happened in past ages.‡

If this eminent man, whose historic intuitions were at times almost inspirations, was able to examine the documents now accessible to students of Mexican history and to have weighed their contents with the same critical and judicial mind which he brought to the study of his "History of the Geography of the North American Continent," he would have admitted that the cosmogonic records of the Mexicans and Mayas merited as much attention as did those of Egypt and India.

The Abbé Brasseur de Bourbourg, who lived among the Mayas of Yucatan, translated into French the sacred book of the Quiches, the "Popul-Vuh," and was a member of the Commission established to examine into the arts and science of ancient Mexico, assures us that all over Central America, Yucatan and Mexico, in the codices, national festivals, and on the monuments, the memory of a lost continent is recorded.¶ "Their memory of the great tragedy," he adds, "is that the earth was visited by frightful earthquakes, continuous volcanic eruptions and overwhelmed by the waves of the sea." Professor M. Eckstein, who devoted years to the study of ancient myths, was of the opinion that "concurrence of extraordinary phenomena in Upper Asia, with comets and eclipses, preceded the deluge in antediluvian times and led to the migration and dispersion of many members of the human family."

St. Augustine seems to be of the same opinion when he says: "The partial desolation of the earth by the deluge and by upheavals left untouched certain members of the human family to repair the loss of the human race."§ This appalling cataclysm marked, probably, the destruction of Atlantis and many of the islands of the sea, and was perpetuated in the records of the civilized men and women who escaped. "The memory of a series of frightful catastrophies," writes the scholarly Brasseur de Bourbourg, in the introduction to his translation of the "Popul-Vuh," "which in remote times visited America, still remains with the people of Mexico and Central America."

The *Tonalamatle*, or early Mexican ritual, the codex *Chimal-popocan*, the Dresden Codex and the "History of the Suns," copied by Von Humboldt from Gomarra's "Conquest of Mexico," all mention a series of great catastrophies or eruptions, earthquakes, hurricanes and tidal inundations which destroyed many of the people and submerged an immense territory.

Drafts Upon the Bank of Time.

As we advance in the study of our world and its ancient inhabitants we perceive that, in seventy years, science has taken giant strides forward, and that that

* "L'Histoire Primitive," p. 25, par Brasseur de Bourbourg. Paris, 1864.
† It is referred to by Landa and Cogolludo in their books on Yucatan.
‡ "Vues des Cordillieres," Vol. II, Chap. 27.
¶ Sources de l'Histoire Primitive du Mexique." Paris, 1864.
§ "De Civit. Dei," lib. XII, p. 10 *et seq.*

which was but a theory sixty years ago is now accepted as a reality. We know now that in geological times land and sea have shifted, the outer rims of continents altered and raised, and that the shore line of western Europe was in the past far out in the Atlantic. Archipelagoes have risen and new lands have been formed. Geikis, in his history of "Prehistoric Europe," says that the bed of the German Sea was at one time dry land. It is now admitted by geologists that France, the British Isles, the Shetlands, the Orkneys and the Faroe group of islands were united by a ridge, now submerged, which ages ago joined them together. In the past no scientist of repute openly sustained the hypothesis that at any time in the life of our earth a land connection existed between the old and the new world. The cloud of mystery enveloping ancient traditions and myths was deemed to be impenetrable, but recent discoveries afford the possibility of solving a problem supposed to be, like the elixir of life, outside the province of serious speculation.

But now that the subject has been investigated with the thoroughness of European scholarship, Atlantis is no longer a romance embellishing the tales of visionaries or imposing by its vastness and fascination on the good nature of credulity. If, with Scott Elliot, and Sir Ernest Shackleton, we admit that the antarctic regions of snow and ice were at one time a land of song birds, babbling brooks and great forests, then, since that time, anything may have happened.* Fossils of marine animals were found in the Andes at a height of 14,000 feet and in the Himalayas at an elevation of 16,000 feet. When the Spaniards first landed at Grenada, Tobago, Haiti, and other West Indian islands, they saw an extraordinary number and variety of unfamiliar animals, and among them the agouti, armadillo, the peccary or Mexican musk-hog, the manicou or Grenada opossum, deer, monkeys, snakes, and many small animals now exterminated. Though some of these islands are more than one hundred miles separated from the main land, the fact that these animals were on them proves that, at some time in the past, the islands were torn by violent convulsions from their parent land.

Anyone at all familiar with the coast line of the gulfs of Paria and Carioco cannot fail to perceive the effects of a violent rending apart of the region, which opened a passage for the waters to enter. Nor did this separation occur in very remote times; for when Columbus, on his third voyage, visited Paria, the natives spoke of the catastrophe as an event which was not very old.†

In fact, all the indigenous tribes existing at the time of the Spanish Conquest, or before the extermination of the Caribs, in Central and South America, in Mexico and the West Indies, retained a tradition of a frightful calamity which, in the remote past, threatened the perpetuity of the human race. The traditions, monuments and lore of all these races and peoples record an immense catastrophe to which their remote ancestors were witnesses. It is everywhere the same tale, the ocean breaking its boundaries and overwhelming the land, destroying cities and their populations. It is the story of a continent broken by the same shocks which troubled the waters of the great sea and lifted mountains. Those who escaped the cataclysm built pyramids where they settled, in memory of the high places to which they fled, and in thanksgiving to their gods.

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* "Prehistoric Man and His Story," p. 86. "Shackleton in the Antarctic," London.
† Codazzi. "Resumen de la Geografia de Venezuela," pp. 4, 6, 7.

The Famous Stone Images at Ronorraka in Easter Island, Polynesian Group, South Sea Islands.

What Time Has Left Us.

The existence and disappearance of the continent has ceased to be one of the romances of the world, and now, in its vastness and greatness, takes its place among the certainties of the remote past. The examinations made, the facts recorded by Professor Carl Gagel, and the discoveries made by the French paleontologist, M. Pitard, go far to prove that a great continent at one time existed in the eastern half of the Atlantic Ocean, and that the islands of the Azores, the Cape Verde and Canary Islands, are the remains of the submerged land. Herr Gagel, one of the most eminent oceanic students of Europe, proves that the volcanic coverings of all these islands have under them more ancient strata such as would constitute the base of a continent.

M. Pitard found in the Canaries undoubted cretaceous or chalk deposits, and borings in the Cape Verde islands have shown sedimentary strata under the volcanic rocks. It is probable that the disappearance of Atlantis occurred much later than the cretaceous period, for on some of the Atlantic islands—the remains of the continent—species of animals and families of plants were found belonging to the pleistocene age when man was on the earth.*

Even in the Pacific Ocean a great body of land must have, at one time, existed, leaving many islands to confirm its disappearance. Of this, that hard-headed and practical navigator, Captain W. J. J. Spry, of the *Challenger*, entertains no doubt, for he says: "Before the Deluge, in the Pacific Ocean, was a continent occupied by a race of human beings in a high state of civilization. In New Caledonia the remains of an ancient city, with paved roads and an aqueduct, have been found. In the Marquesas, the Navigators, Carolines and Ladrones, many gigantic ancient ruins have been brought to light."†

The wonderful archæological remains of Easter Island, South Pacific; the immense platforms formed of large stones, some of which weigh five tons; sea walls two hundred feet long and nearly thirty high, and colossal statues of lava-stone thirty feet high, testify to the existence in the past of a race of human beings superior in education and intellect to the Polynesians and Malays who peopled the islands long after them, and who knew nothing of the men who raised these memorials. When Mr. Scoresby Routledge, who had passed sixteen months on Easter Island, arrived in England, June 24, 1916, he informed the members of the Royal Geographical Society that: "The many stone statues strewn about the interior of the island, which have heretofore been supposed to have been abandoned in their present locations while being transported from the platforms or terraces along the coast, were actually arranged *along former roadways*, and were evidently intended to remain where they now are."

We have no reason to doubt the accuracy of Mr. Routledge's statement, which goes to prove the advanced civilization of the ancient inhabitants of the island.‡

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* The words *Atlas* and *Atlantic* cannot be traced to any language known to Europe. Their origin and etymology are a mystery. The Mexico-Spanish historian, Molina, says, in his "Vocabulary of Mexican Words," "That from the radicals *a, atle*, is derived the word *Atlan*, meaning, in the *Nahuatl* language, on the border or in the middle of water, and from which comes our adjective Atlantic. A town called *Atlan*, with a good harbour, stood at the entrance to the Bay of Darien, when Columbus first visited the land.

† "The Cruise of H.M.S. *Challenger*," W. J. J. Spry, R.N., F.R.G.S., p. 208.

‡ The island has an area of about fifty square miles, is 2,300 miles west of the coast of Chili. The famous stone images at Ronoronaka, Easter Island, the gigantic statues referred to by Mr. Routledge, and the ruins of stone houses, are the remains of a race whose origin is unknown and of whom there is no tradition.

Testimony of Twentieth Century Scholars.

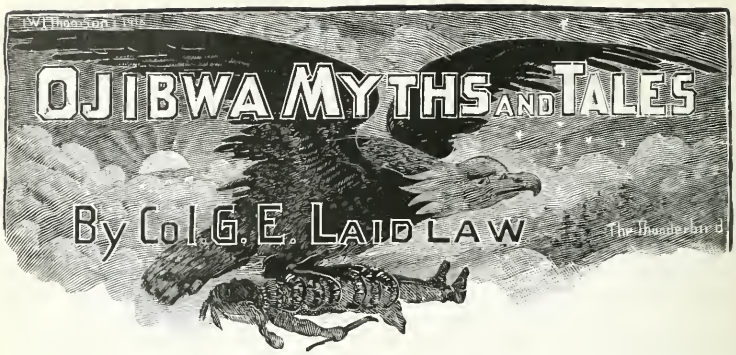
Professor R. F. Scharff, member of the Anthropological Society of Paris, after years of study of the faunal life of Europe and America, proves that, at some time in the past, America and Europe must have been united by land. He writes: "That such a land connection must have existed in *recent geological times* I do not doubt. The snail must have slowly wandered during a long series of centuries from the old world to the new by means of an ancient north Atlantic bridge."* He maintains that "all the deer in South America have originated from one or more ancestors which invaded that continent from West Europe in tertiary times," that the zoological affinity between Europe and North America is so strong that nothing short of a wide and convenient land bridge with lakes, rivers and mountains will suffice to explain the meaning of certain paleontological facts. On page 153 he makes this bold statement: "What I wish to make clear is that huge creatures requiring an abundance of vegetable food must have poured into America in the era of mammals and leaf forests." In support of his claim for a submerged continent he summons as witnesses the naturalists, Dr. E. S. Morse and Professors Winkley and Cockerell. To these eminent names may be added that of C. W. Johnson, who, on page 73 of his latest work, "*Distribution of Helix Hortensis*," is of Scharff's opinion. Scharff, furthermore, adds that the seeds of anemones and other plants could not have found their way to America by the Bering Strait, but that "they came by migration from Europe to North America by a great land bridge," and that nothing short of a wide and convenient land connection between America and Europe will suffice to explain the existence of ganoid fishes in the Mississippi basin.

Professor Pilsbry, who in his earlier writings opposed the claims of those who contended for an Atlantic continent, now admits in his "*Manual of Conchology*" that Africa and South America were in remote times united by a land which has disappeared. Not only that, but many of those who believed in the immutability of an Atlantic basin, have, after a careful study of the zoogeography of America, changed their views and now admit the absolute necessity of a land bridge. Among these learned men are included Mr. Andrew Murray, who in his work on the "*Coleoptera of Old Calibar*" (p. 450), tells us the islands of St. Paul, St. Helena, Ascension, and Tristan da Cunha, are the wrecks and ruins of a submerged continent; Dr. A. E. Brown, "*American Big Game*" (p. 87); N. J. Krishtafovitch, "*La Derniere Période Glaciaire*" (p. 293); Dr. F. Might, "*Greenland Ice Fields*" (p. 12), and J. L. Lobley, "*American Fauna and Its Origin*" (p. 23), all plead for a lost continent. If it be admitted that animal life made its first appearance in the old world, and that the fresh-water fish in our far inland lakes and rivers, the snakes and reptiles in our great inland forests, the mammals, the bear, bison, moose and reindeer, were found everywhere in North America one hundred years ago, then, as a corollary, the existence of a land with rivers, lakes, and mountains, between the old world and the new, must be conceded.

Even that close reasoner and scientist, Professor Lydker, contends that only by a land bridge (Atlantis) across the Atlantic could the ancestors of the Santa Crucian Polyprotodont reach this continent.†

If it can be proved, and we think it can, that this great and wide causeway between Europe, Africa, and America, was inhabited by members of the human race, then the "Origin of the American Indian" ceases to be a problem baffling solution.

* "Distribution and Origin of Life in America," p. 14. Constable & Co., London.
† Geological History of Mammals," p. 112.



In this paper I have taken in a wider scope of myths and tales, embracing those from the earliest times before the advent of the white man, and those of presumably the time of the French occupation of Canada down through modern times to the latter day life of the present-day Indians. This range of stories includes ancient beliefs (such as of Nanbush, Thunder birds, and Wintigoes) witchcraft, incidents of cruelty in the Ojibwa-Mohawk warfare, modern life, conjugal infidelity, religion, Christians, giants and dwarfs, references to the devil, whiskey and drunkenness, automobiles, telephones, railway tracks and wire fences, which is indeed a wide range.

I have not attempted to classify these stories but have just written them down as I received them.

Present day tales have, I fear, been influenced by local or current events, for instance, Nanbush with Flying Canoe (wings on his canoe) may be adapted from the aeroplane. And older tales told by present day raconteurs may thus be modified. See Nos. 113 and 132 and 39. The expression "somewheres" or "some place" may be adapted from the phrase "somewheres in France." Indians are quick to adapt phrases.

The word "reserve" is used in some cases other than a regular reserve. It seems to have been adapted to include a settlement, community, a large permanent camp or other large camps of Indians, besides the regularly established Government Reserves for Indians.

A number of these stories were obtained by myself, and others were collected by Mrs. Lottie Marsden, Mrs. Sampson Ingersoll, and Mrs. Marjory St. Germain, all Ojibwa women of middle age (on the Rama Reserve) who collected them from the older Indians for me especially.

I have put these stories down as plain and as simple as I could, adhering to the Indian's way of speaking and expression, and have written them down just as I got them.

One notices a certain individuality in these tales. Jonas George's are vague and mysterious, and have a local colouring to suit the expressions of the times such as "Somewheres in Canada" (No. 39). The tales of Peter York (now deceased) while more definite, precise and exact, are sometimes coloured with local colouring to suit (No. 28). His descriptions were sometimes suggested by what he noticed locally, therefore he occasionally adapted local colouring. The men though not

having a great variety of expression, are generally richer in expression and have more variety than the women. The women do not seem to have as large a range of ideas as the men, and are prone to confine themselves to a repetition of the same event.

Witchcraft is deeply rooted amongst these Ojibwa. Witches are male and female, and are believed to have practically an unlimited scope of power to Georgina Island and Lake Scugog, though seemingly insignificant are given and using various disguises. Many of these stories, which come from Rama, Georgina Island and Lake Scugog, though seemingly insignificant are given because they show certain traits of Indian character and belief, and also to show that the Indian possesses the attributes of joy, grief, sorrow, hate, envy, cruelty and superstition, the same as other people, and is not the stoical person at all times, that he is often believed to be.

The writer is sorry to inform his readers that Peter York died at Rama in the summer of 1917.

Mrs. Lottie Marsden's Indian name is "Chicogquaw" the meaning of which was not obtained. Her grandfather's Indian name is "Joosa." Her grandmother's name is "Joesaquaw." "Quaw" is evidently another form of "kwee," a "woman." North-west Ojibway or Cree Indians use the word "squeau" or "squaw."

Mrs. Sampson Ingersoll's Indian name is "Peadewamock" or abbreviated to "Peademock," which means "Hear the Thunder Coming" or "Thundering."

This paper introduces a new cycle of tales, namely, "Petit-Jean," no doubt introduced by the early French fur traders and voyageurs, and known locally in Rama as "Tinzhaw," and in other reserves (Crees in the North-west, and Ojibwa on the north shore of Lake Superior) as "Kicon," "Ticon" and "Tasha" (see Vol. XXIX. July-September, 1916. No. CXIII. *Journal of American Folklore*. "European Tales from the Plain Ojibwa," by Alanson Skinner. "Plain Cree Tales," by Alanson Skinner, and "Ojibwa Tales from North Shore, Lake Superior," Wm. Jones.)

"Tinzhaw" who is the younger of two brothers is a mischievous character, generally in trouble. The Rama Indians do not know the meaning of the name. Some stories have been rejected as being of no Ethnological value.

Some further variants of the name Nanbush and authorities as per following:

Mina Bozno.—The Great Rabbit, *Montreal Star*, 15th Oct., 1898. (Probably Misprint for Mina Bozho.—G. E. L.)

Nannabozho.—How he came to make this earth. An Ojibbeway Legend, by Charles Fenno Hoffman, New York, 1843. Vol. 1 and 2 in one book. Vol. 2, pp. 44-53.

Nannabush.—Ditto. From letter of Mr. Percy Van Epps, 23rd May, 1917, Glenville, N.Y.

Nanaboosh.—Rupert's Land Indians in the Olden Time, by James Stewart, late Hudson Bay Co., Ontario Archæological Report, 1904, p. 94.

Nanibijou.—Legendary Lore Lake Superior, by Gay Page, p. 25, 7th Annual Report, Thunder Bay Historical Society, Fort William, Ont., 1916.

Winnebush } Letter 10th Nov., 1917, from Mrs. Laura Miller, St. Louis, Mo.,
Winnebozho } U.S.A., *re* Wisconsin Ojibways.

Wénabójo.—Chippewa Music, by Miss Dinsmore. Bulletin 45, p. 206, and Bulletin 53, Bureau of American Ethnology, Washington, D.C. "Wénabójo and the Ducks Dance."

Man-a'bo-sho
Man-ab o-sho
Man-ab-o-sho

P. 27, p. 56 (p. 67 and 102, Vol. V. Minnesota Historical Society Collections, 1885.

History of the Ojibways, by W. M. A. Warren, written about 1852-53, who says on p. 27. "The history of their eccentric grand incarnation—the great uncle of the Red Man—whom they term Man-abo-sho."

P. 56 refers to the Flood Myth, see No. 74 in this paper. P. 67 refers to the universal uncle of the Ojibways. P. 102 refers to hunting the great beaver on Lake Superior, see No. 23, Paper 2, No. 34, Paper 3 of this series.

Nanna-Bijou.—A Summer Vacation on North Shore of Lake Superior, p. 12, etc., W. S. Piper, Fort William, Ontario, 1918.

Nenabosho.—Ojibway Tales, Wm. Carson, p. 491, *Journal of American Folk Lore*, Vol. XXX, No. CXVIII, Oct.-Dec., 1917.

Nänabushu.—Ojibwa Tales from North Shore of Lake Superior, Wm. Jones, p. 370, *Journal of American Folk Lore*, Vol. XXIX, No. CXIII, July-Sept., 1916.

Nänabucu (c like sh in she)

Ojibwa Texts, Wm. Jones, Vol. 7, Pt. 1, Publications of the American Ethnological Society, 1917.

Nanaboso, p. 80.—Indians of Greater New York, by Alanson Skinner, 1915.

No. 40.

Me Sah Ba and the Windigo (No. 2).

Told by Jonas George (*Wah-sa-ghe-zik*).

This man (Windigo-giant) was around away up north to Hudson Bay, was around all the time, look for the Indians, if he could come across and kill them for his food to eat when they were cooked. He boiled them in hot water. The Indians all the time watch to see if he comes in the bush. This man did a lot of that kind of work. This man's name is Windigo. He is a big man.

Another man came soon to that country and watched all the time if he could come across the Windigo. One time he is on the sea shore and sat down to rest himself. His name was Me Sah ba. He was a good man with (or to) the Indians away up in the north country from here. He used them good, all like his children anywheres he saw them, and the Indians like this man. When he is coming on his camp on the shore of the lake, one time, Me Sah ba knew somebody was coming. He knew everything, and he knew in his mind and began to think about Windigo, who might come now. After a while he can hear something a long ways off (8 or 10 miles). In a little while he sees Windigo come towards him, a big man (almost 20 feet high or more) Me Sah ba began to think about fighting with Windigo. He gets ready. Windigo pulls one big maple (20 inches through) to hit this Me Sah ba. Those two men began to fight a great fight and use the big trees for clubs. They fight a long time and Windigo got beat and quite badly wounded.

Me Sah ba is stronger than Windigo, so Windigo goes away somewheres where he got better. The next time he came across Me Sah ba, Windigo got killed with a stone.

Me Sah ba is a great man for this world, used the people good all the time.

Note by G. E. L.—Me Sah ba or Mesaba same as Nanabush. See Report 1916, p. 85. Variants of Windigo, used in various Ojibwa reserves are Wintigo, Wendigo, Wentigo, Windago and Windgoe, the two latter being used in Rama. Also Wehtigo used by the Crees, etc., in the North-west.

No. 41.

THE GREAT MAN AT THREE RIVERS (PROV. OF QUEBEC).

Told by Jonas George.

One time over three hundred years ago, there were about 180 Indians living at the Lake of Two Mountains, near the St. Lawrence River. These were good Indians, but there was no preaching at that time, but this great nation know most anything just like a good reader. Those people know someone above. They believe and fear that someone is looking down on earth from above. One young man—and no others—one morning went down to the river to see the water, how fast it went down. He lay on the grass to take a rest. He heard some singer just on the tree, nice song. He sees a little bird sitting on the limb and singing and it sounds good. This man knows that hymn, and that the little bird is praising God. In a moment he began to hear different birds singing all over the place, and all kinds of birds were singing the same hymn.

This young man knows all kind of language on earth, knows everything. He can talk with deer and can speak to (with) any kind of beast or bird. Some birds are bad, just like persons, and use bad language and bad talk against God. Man is just the same. This man knows the weather and coming thunderstorms and all kinds of things on the earth. He gets what he wants on dry land or in the lake, gets fish any time because he believes all things from God. He lives well for a long time at that place on the St. Lawrence River, or Three Rivers. He was happy. This man then was a preacher for better living in this world. He never heard the gospel.

All his time he knows all, and sings. Sometimes people heard and were feared (afraid) and looked above at last.

Someone looked away east a great number of miles (1,000) across the sea, saying "Are you people white men, or we might say England." This man could see from here to England. Is the greatest man ever known.

Note by G. E. L.—Wah-sa-ghe-zik says this story is over 300 years old. That he knows some of it, but it is too long for him to remember it as he heard it. It probably refers to some person or teacher at the time of the early French period in Canada, but has some traces of Nanabush in it.

No. 42.

THE SICK INDIAN.

Told by Mrs. Lottie Marsden, Rama Reserve (Ojibwa).

One time there was a settlement of Indians camping by the lake shore. One of them took sick, and he wanted some one to pray for him, so all the rest of the "landing" of Indians went to have a prayer meeting. One of the best Christians got up and led them in prayer. They all thought he was a very good preacher. There was an old Indian woman sitting in bed, she got up and said to the rest, "I wouldn't listen to that man, he is nothing but a rogue and a drunkard." So he didn't speak another word. He just went out and said "Good-bye, I am going to the hotel to get a glass of rum."

No. 43.

THE INDIAN WOMAN AND THE LION (I.E., AMERICAN PANTHER).

Told by Mrs. Lottie Marsden, Ojibwa.

My great-grandmother lived in the woods, and one night she was left alone, she was awfully afraid. She knew somebody was coming to her house that night, of course the old Indians could tell if some one was coming to their homes about a week before. My poor great-grandmother went to her bed upstairs and about midnight she heard someone walking around the house, sounded like a horse's footsteps, so she listens and first thing she knew it was a lion. He was trying to get in the house. He went round the house three or four times. He went to the window and looked at grandmother, and she had an axe and hit him and knocked him down. The lion laid there for some time then he went away. Next morning grandmother saw blood on the ground. Then that day she left that house for good. Poor grandmother passed away two years after. She was all the time troubled thinking of the narrow escape she had.

No. 44.

SKITTA-WAH-BOO OR KITCHE WAHBOO.

(Told by Peter York (Penascie).

My uncle was coming from Fenelon Falls one time a long while ago. He had been drinking Skitta-wah-boo (firewater). He fell asleep in his canoe and when he woke up he saw the lake was full of serpents with one eye. He tried to shove these one-eyed serpents away from his canoe, and got so very tired doing so, they were so many, that he fell asleep again. When he woke up the next time, he saw these one-eyed serpents had been changed into saw-logs. Ha! Ha!

Note by G. E. L.—This story illustrates the vagaries of the Indian mind.

No. 45.

THE MONSTER FISH IN LAKE SIMCOE.

Told by Peter York.

There is a monster fish living in Lake Simcoe. His tail is at Thorah Island and his head is at Shanty Bay. This monster fish eats all the sturgeon, and that is the reason there are no sturgeon in Lake Simcoe.

Note by G. E. L.—The distance between Thorah Island and Shanty Bay is about 15 miles.

No. 46.

WITCH STORY (No. 3.).

Told by Mrs. Sampson Ingersoll (Ojibwa), Rama Reserve.

About four hundred years ago, there was an old woman who killed six people. She died, and upstairs where the window was there was a tree right

beside the window, and the people of the house after she died saw an owl sitting on the tree, and one time they saw the owl they found out it was the old woman who died, she was a witch, and had killed six people (caused them to die), so they cut down the tree and she never came back. This is a witch story. The end.

No. 47.

Witch Story (No. 4).

Told by Mrs. Sampson Ingersoll.

Once there was an Indian and his wife and they had a baby, and a nurse who looked after the baby, and who stole the baby. Of course in the olden time the Indians used to put their babies on boards (Indian cradles) which were fixed up with beads and nice cloth. The old people (the two old couples, the man's parents and the wife's parents) and the young married man went away and left this young woman all alone, and she lived there alone. For a long time she waited, and one evening when she was sitting by the fire feeling so sad and lonely, her son that the nurse stole came back. She told her son "You were stolen from me when you were small." Of course her son did not know she was his mother. This baby had a little dog before he was stolen. She talked to her son and told him what to do, she said, "When you go back to the nurse who stole you, you pretend that you are sick, you tell her that you want the board that you were put on when you were small, she will give you one made of cedar, but you will say to her 'not that one, I want the one with the beads on.'" And the old nurse who stole him gives him the one with the beads on, and he said "I am well now."

He went back to his mother and she told him what to do again. "You will pretend you are sick again, she will ask you 'Why you are sick,' and you will say 'I want you to dance,' and she will. Tell her 'to lift her dress very high,' and you will see the spot where the dog bit her when she stole you away, and you will then believe she stole you and that I am your mother." The son did this.

He went back to his mother again and she told him what to do again. "You go back again to the old woman who stole you, and you will go out hunting and kill one deer, and you will tie it very tight (to a tree) so that she can't untie it. And while she is busy trying to untie the deer, you and I will go away and you will put an old strap beside the deer, that will answer her when she speaks to you. She will yell out saying 'are you there yet, my son?' and the strap will answer, and you and I before we leave will kill two of her children, and we will put them at her door and will put their livers in their mouths, and when she returns to the camp she will be awful mad (enraged) when she sees her two children killed." This was so, and the old witch when she returned put a piece of buckskin on the fire and burnt it. The boy and his mother ran away and the old witch ran after them, and as she got very close to them, the boy had a bow and arrow, and the mother told the boy "to put a mark on the ground and the ground will split, and she (the witch) will lift up her dress and try to jump over, and she will fall in where the ground is split." This was so, and the woman whose son was stolen said to the witch, "You will be called *toad* forever. You are not allowed to live when you steal people. You will be called *Toad* forever." The end.

Notes by G. E. L.—Burning the buckskin was probably part of her witchcraft to find out who killed her children.

The "toad woman" appears in Ojibwa Stories. See pp. 145, 263, 399, 431, Jones Ojibwa Texts, Publications American Ethnological Society, Vol. VII, Part 1, 1918, where she is sometimes defined as the "Mother Earth" and occurs in Nanabush stories.

See p. 35, Memoir 71, Myths and Folk Lore of the Timiskaming Algonquin and Timagami Ojibwa. F. G. Speck, 1915, Geological Survey, Ottawa, Ont.

No. 48.

How the Bear Lost His Tail.

Black Bear was walking along one day and met Fox. Fox had a string of nice fish and Bear asked him where he got them, and how? So Fox told him that he went fishing with his tail, and Bear wanted to know how he did it. So Fox told him to go to the lake and cut a hole in the ice and put his tail in for the fish to bite, and when Bear felt a bite he was to jump and pull the fish out on the ice, but Fox told Bear he mustn't jump at the first little bite he felt on his tail, because the fish would then be only nibbling, but to wait till he felt them biting good. Bear did so, and gave a jump and broke off his tail, which had become frozen in the ice.

Note by G. E. L.—This story I heard a good many years ago and have forgotten the authority.

No. 49.

Robbing the Grave.

Told by Lottie Marsden.

Once there was an Indian and his wife living. They had one daughter which they thought the world of. One day this daughter took sick, and she was that bad the doctor gave her up. Of course they were quite rich and had a hired man. The poor girl died. She had diamond rings, which weren't taken off her fingers and she was buried with them on.

The hired man made up his mind that he was going to dig up the grave and take the diamond rings off the dead girl's fingers.

He went about two nights after she was buried and dug up the grave. When he tried to take the rings off he could not, so he made up his mind to cut the fingers off. When he cut them the dead girl jerked her fingers and the hired man ran away, he was afraid he'd be arrested. The girl got out of the grave and knocked at her father's door. When the poor lonely old man opened the door he saw his daughter standing there. He said "I'd give many the thousand of dollars to the one who went to dig up the grave." The hired man told him that it was him. This young man was a nice Indian boy and was very kind to them. They always took him as their own son. They wanted him to marry the girl, but he didn't like to marry a person who died for four days.

No. 50.

THE STARVING HUSBAND.

Told by Lottie Marsden.

Some time ago there were Indians camping, and they had a nice young daughter and she got married. Her husband was a good hunter and got all kinds of game. The old man got jealous of his son-in-law; he got his old medicine and bewitched the young man so that he couldn't kill anything. So the young man got very poor, and the old man would not let his daughter give him anything to eat. One night the young woman had a piece of meat, and she gave it to her man after they went to bed. The poor young man got to be a skeleton and was flying up in the air. Of course in the olden time if a person got hungry (i.e., starving) they'd fly up in the air, and if you burn oil, and if they smell it, they come to life again, and would be able to eat and able to work again, but it would be quite a while before they would be the same. The end.

(Compare with 116.)

No. 51.

THE BEWITCHED GIRL.

Told by Lottie Marsden.

On Snake island (in Lake Simcoe) some years ago Indians used to live. One girl took sick. The doctors did not know what was the matter with her. She had a sore knee, and they could not see anything on her knees. She was that sick she could not rest at nights. One morning they saw a blue head in the flesh, but they could not get it out. It went in farther all the time, until they could not see it at all, and when it disappeared the poor girl died. It was an old witch killed the poor girl. The end.

Note by G. E. L.—Snake Island belongs to the Rama reserve, and is in Ontario Co., Ontario Province.

No. 52.

OJIBWA AND MOHAWK (No. 8).

Told by Lottie Marsden.

One Indian in Rama told me this story himself. He said: "About forty years ago I was travelling one night, and I was afraid just like if there was some one after me, and I kept looking back all the time, and once when I looked back there was a stump alongside the road, and I saw a man looking at me, his face was all red and feathers on his head. I did not stop to look at him long, I only walked as fast as I could: I did not let him know that I was afraid of him. It was a Mohawk sneaking around. Maybe there were a lot of them and this fellow came ahead of the rest. That was what they all were to do. Just to find out who was near, and this fellow go to tell the rest, and they all come then with their bows and arrows." The end of my story.

No. 53.

Ojibwa and Mohawk (No. 9).

Told by Lottie Marsden.

A long time ago a young couple went out to hunt. They travelled for two days and got to their camping ground and made their camp that evening. The next day the man went to hunt and he got one deer. He went home to camp, and his wife was frying some of the meat. There was a little hole on top of the camp. The wife was looking and she saw a man—it was a Mohawk—watching them. The woman whispered to her husband, and the husband said to her: "I will show you how I killed the deer to-day." He was looking at the Mohawk and he made a shot at the hole, pretending that he was was showing his wife how he killed the deer, and the Mohawk fell on the ground. They were afraid to stay there. They packed all their things and ran away. They travelled all night. Just when they got up to an Indian village, they looked behind and they saw about forty Mohawks after them. They killed about ten and the rest of the Mohawks ran away. If the couple had stayed where they were camped they would have got killed sure by the Mohawks. The end.

No. 54.

The Preacher.

Told by Lottie Marsden.

One fall, on Georgina Island (Lake Simcoe), three or four families left to camp out all winter. One of them was a preacher, and in the evenings they have a prayer meeting, but the preacher was always afraid some white man might come along while he was preaching and make fun of him. One evening there was a sleigh-load of white people went to the camp, and as this old man was saying his prayers somebody heard the whites coming and told the old man, who yelled out: "White man! White man!" and all hid under the blankets. The end.

Note by G. E. L.—There is an Ojibwa Reserve on Georgina Island, Ontario Co., Ontario Province.

No. 55.

Witch Story (No. 5).

Told by Lottie Marsden.

One winter, at Sturgeon Lake (Victoria County), the Indians were fishing through the ice, and one night one of the men had a dream: he was lame and he used a cane. He dreamt that there was an old woman after him and he hit her on the eye with his cane. The next day one of the men went to his home on Seugog Island; when he got there he found the old woman very sick. There was a big sliver taken out of her eye. That was the woman the old lame Indian dreamt of. She was an old witch. She killed quite a few people when she was living. This ends the story.

Note by G. E. L.—Seugog Island in Lake Seugog, Victoria County. Indian Reserve there.

No. 56.

THE TWO OLD MEN WITCHES (No. 6).

Told by Lottie Marsden.

One time there was an Indian hunting away back in the wild woods, and when he got far away he saw two old men witches sitting near a big log. On this log they had men drawn up. Those are the ones they are going to kill next. That's (to the log) where they draw the ones they are going to kill men, women and children. When they saw the hunter they were afraid he'd tell on them, so they said to him, "Don't tell on us, and we will show how to be a witch; we will show you how to kill people like we do, and you will be a witch like us." But the hunter said "No" to them. He got his little axe and cut their heads off, and burnt their old medicine and went home. Everybody was proud of him and thanked him. The end.

Note by G. E. L.—Little axe=a tomahawk, or belt axe that hunters and trappers use, both Indians and whites. It is carried in the belt.

No. 57.

THE FOUR GIRLS AND THE BIG SNAKE (SNAKE STORY No. 1).

Told by Lottie Marsden.

One time in the olden days there were four Indian girls in the woods looking for flowers. They saw a big log and one said, "Let us go there and play." One of the girls was a "dummy," and when they got to the log they saw a fish on it. The "dummy" spoke and pointed at the fish, but the other girls could not make out what she said. They got frightened at the fish; they thought it was a snake turned to a fish. They all ran away and went and told their mothers. They went back about an hour after and they saw a big snake there: he tried to fool the girls. I guess he thought they'd take the fish home and cook it and eat it. If they did so they might of all died or turned to snakes. This ends the story.

No. 58.

THE THREE INDIANS AND THE DEAD MAN.

Told by Lottie Marsden.

Some years ago there were three Indians looking for work. They could not talk English, but one of them knew the word "yes." The second knew the words "us three," and the third the sentence "I thought so." As they were travelling in the woods they found a dead man, and as they stood there looking at him the police came and asked them, "Did you kill this man?" The first Indian said, "Yes." The second, "Us three." "Well you will be arrested and will be hanged," the police said to them, and the third Indian said, "I thought so." The end.

No. 59.

THE NICE BOY AND THE JEALOUS MAN.

Told by Lottie Marsden.

My grandmother is a very old lady, and she often tells me of olden days. One story she told me that there were quite a few of them in their family, and there was a nice Indian boy staying with them. One day there was an Indian man came and he stayed with them for a few days. He had a big knife with him and they were all afraid of him. One day the young man went out visiting. This one was very kind to the others and they all liked him. The other one with the big knife got jealous of him. The nice young man came back. The other went out and met him and killed him right there with his knife. After he had killed him he said to him, "Get up." My great-grand-folks sent this man (the killer) out of the house. Then he ran away and quite a few men followed him, but they could not catch up to him. But they saw the places where he had his lunches. He took a pail with him to make tea on the way. My great-grandfather could have caught him, but he was afraid of him. He (the fugitive) might have killed them all, but he just told them "To run away." The end.

No. 60.

THE OLD WITCH WHO DIED IN HER CANOE (No. 7).

Told by Mrs. Sampson Ingersoll.

One time there was an old woman living alone. She was an old witch. One side in her house where she lived she had about ten people that she killed already. She went away to visit the chief in another village. She teased the chief. She said to the chief, "Have you five black dogs that you can give me?" The chief refused her; he said, "I haven't the black dogs you ask me." The old witch got mad (angry) at the chief, and got in her canoe and said to the chief, "You will lose five of your young people." The chief said to her, "It is not only you that can do anything, when you get between here and 'The Point' you will die, and when you float to the shore you will rot and you will be all bugs." When the old witch got half-way in her canoe she heard a bee humming, and it went in her ear. She yelled, "Whoo, whoo, whoo!" and blood ran out of her ears and nose and mouth. This was the end of the witch. She died in her canoe, and she killed no more people. This happened about two hundred years ago. The end of this story.

Note by G. E. L.—This is another version of No. 12.

No. 61.

WITCH STORY (No. 8).

Told by Mrs. Sampson Ingersoll.

Once there was an old witch, living alone, who killed quite a few people. One took sick; she was a woman, and she knew it was this old witch trying to kill her One day the old witch went to see the sick woman, and the sick woman said to her

"Why do you come here? For it is you that is trying to kill me. I can see the string (of little fingers) you have got around your neck." The old witch had a string (necklace) of little fingers of people that she had killed already, and the sick woman saw them. The old witch started to cry and went home crying all the way. When she got home she started to another person's. This person knew it was her again. This person was a man and he cut out a stick a foot long, and when the old witch came to him he pecked her on the arm with the stick, and the old witch fell and moaned there for a long time. She laid beside the log and she died. This happened about 200 years ago. The end.

No. 62.

My Own Story (Witch Story No. 9).

Told by Lottie Marsden.

About fifteen years ago I was troubled about the witch. I was working in Victoria Harbour (Ont.), and I saw some very wild looking Indians there. I was afraid of them. I would never speak to them. One young man had his eye on me. His father was a witch, so I judged he thought I was going to be his son's wife. About two weeks after I saw these wild Indians (of course they weren't real wild Indians, but they looked quite a bit like it any way) my father received a letter asking him if he would give his daughter. After I read the letter I cried all night. I said to my father that "I would not marry that wild looking Indian, even if he had all the money that was in this land," and my father wrote back and told him that "he had not anything to say. My daughter is her own boss, and she says 'she will not marry you for all the money in this world.'" The young man's father tried to kill me then. There was a fire all the time at night around our house. So one night my father saw a cat outside of our house and he shot it, and I was troubled no more. The cat was the witch my father killed. The end.

No. 63.

The Indian Girl and a "Devil."

Told by Lottie Marsden.

A long time ago there was a nice Indian girl. She was a farmer's daughter. She went about one mile to milk the cows. She never liked to go with anybody. She had a young man who came to help her to milk. She had nice rings that that young man gave her, so she kept on nearly all summer. One day she was going to scrub; she took off her rings and put them in a tumbler. The rings got on fire and the sideboard and all got burnt. This young man was a "devil" and he fooled her. All the family left there, they sold their farm and left that country. They were afraid of the "devil" who came and acted like a young man (who was a devil). So they went away and he never was known of, no more. The young Indian girl was ashamed of herself. She did not like to see anybody who lived near them. The end of this story.

No. 64.

Witch Story (No. 10).

Told by Lottie Marsden.

In Georgina Island (Lake Simcoe) some time ago there was an old witch. That is the witch who killed quite a few people, and one night a young man was lying beside the road dead drunk. About midnight he woke up and wondered where he was. He lay there for a while and he saw someone coming on the road. It came near to him, it was a bear, and every time it opened its mouth this young man could see fire. He began to think it was a witch and he kicked the bear in the belly. The witch yelled and went where she lived. The next morning this young man heard the church bell ringing. He began to think of the witch he killed. This old woman's belly was burst that night and she died. This young man was afraid to tell what he did for fear some of the witch's relations might kill him too, but he did right to kill this old woman. The end of this story.

No. 65.

Witch Story (No. 11).

Told by Lottie Marsden.

Once there was a man and his wife camping. They were very mean. They did nothing but kill people, and the rest of the Indians made up their minds that they were going to kill this old man. "I tell you what we do," said one. "We will say that we are going to have a feast, and we will tell him to sit in the corner of the camp, and we will be talking and smoking." The old woman came too. They were to be killed.

One man came late. He had his gun wrapped up in an old quilt, so no one would take notice, but the old man witch kind of took notice; his eyes were shining like fire. He was afraid then at last that they would shoot him. The old witch woman went out and hurried to their camp to get her "medicines." Before she got them they shot her. The two old witches were killed, and there were no more people dying in that Indian village. The end of this witch story.

No. 66.

Serpent Story (No 2).

Told by Lottie Marsden.

One time there was an Indian and his wife living. They had a young daughter about twelve years old. This girl would never eat with them, she would take her plate and tea-milk out some place behind a big tree. They began to take notice of her. The Indian said to his wife, "To-day at noon I will follow her and see where she will go." This girl did the same again and her father followed her. She went and sat down under this big elm tree. Her father was watching her. After a while he saw a hole right at the foot of the tree. A big serpent came out of there. The serpent and the girl ate together. The man felt awful bad. He went home and got his rifle, came back and shot the serpent. This girl felt awful bad. She would not eat. She said to her father, "Why did you kill the best friend that I had?" They told her everything they could, thinking that she might forget the serpent, but she died a couple of days afterwards, she was that sorry for the serpent. The end of the story.

No. 67.

THE BAD INDIAN AND THE WHITE WOMAN.

Told by Lottie Marsden.

One time an Indian was hunting. He was a bad man, too. He met a white woman who got lost, but *he* knew the way to get back, but he didn't want to take this white woman back. He thought to himself, "She be my wife." He made a camp that evening. He said to the white woman, "We sleep here to-night; I don't know the way to go back," but he did, of course. He knew this woman would stay whether she liked him or not, but she didn't like him very well. She wouldn't sleep with him. This Indian lay down and she went to the other side of the camp, but he didn't like that very well. He said to her, "Say, do you hear something. It's the wolves coming!" This white woman went near him, and he said, "Do you hear them again?" The woman went to him and hugged him; she was afraid of the wolves. He kept her there for a year, till she fell in love with this ugly looking Indian. The Indian did not hear anything at all. He knew the woman would go to him then. He was a bad Indian. The end.

No. 68.

SOCIAL LAWS.

Told by Lottie Marsden.

They say that in the olden days the Indians had this law: If anyone steals their wives or husbands, they get their nose cut off. That is for the first offence, and if caught a second time they get their right ear cut off, and the third time the left ear.

If the Indians had that law now, it would be awful to the people here in Rama. There wouldn't be very many that would have noses and ears. The end of this Indian law.

No. 69.

THE INDIAN GIRL AND THE OLD MAN AND THE YOUNG MAN.

Told by Lottie Marsden.

Some time ago there was a real nice Indian girl. She had two fellows (admirers). One of them was about 45 years old, and the other one was very young. This old man, who was 45, was a witch, and the girl didn't know what to do, whether to marry the old fellow or the younger one. She was afraid that she wouldn't live long if she married the young fellow on account of the old fellow being a witch. So they got married (the old man and the girl). The old man tried to kill the young man. He was jealous of him. He thought the young man might run away with his wife. So that fall when they got married the young man went away to the camp. The young man was all the time troubled by a bumble-bee that was after him at night. He made up his mind that he was going to kill this bumble-bee, but he didn't quite kill it. The old witch was very sick all fall, and never tried to bewitch the young man, for he was very wild looking. Nobody would marry the likes of him. The end of the story.

No. 70.

Serpent Story (No. 3).

Told by Mrs. Sampson Ingersoll.

Once there was a nice Indian girl. She dressed up in the evening, combed her hair nicely and put on the best clothes she had. Her folks didn't know where she was going to. She'd do that every night, and they began to take notice of her. One of the family followed her to see where she would go. She went to a marsh and there was a big patch of cat-tails there. That's where she went and sat down right in the middle. There was a big hole in the ground and a big serpent came out of there and went (coiled) around this nice girl; she had her hair all down. The next evening they followed her again, and took a rifle and shot this big serpent. She went again the next evening, but she didn't see the serpent again. The serpent did not say anything to the girl, only made love to her. Of course, serpents can't speak. The end of the serpent.

No. 71.

Serpent Story (No. 4).

Told by Mrs. Sampson Ingersoll.

There was a portage. There was nobody allowed to portage here, because there was a big serpent right in the middle of the portage. One family wouldn't listen to the rest of the Indians, so they took this portage, and when they got half-way they heard someone behind them. It was the big serpent going round like a wheel (rolling). He jumped and fell right where those Indians were. The Indian boy had a bow and arrow. He just put the bow and arrow beside him, and the serpent split in many pieces. This was the end of him and he killed no more Indians. The portage was safe then. The end of the story.

No. 72.

Windigo and the Indian (No. 3).

Told by Mrs. Sampson, Ingersoll.

Once upon a time an Indian was in his canoe, and while paddling on the lake someone came and took the two paddles from him and he just floated on the lake. A big storm came up and one big wave came and drifted the canoe to the shore. He found himself on the ground, and he took a look round to see where he was. He came to a great big camp, and a man came out of the camp and said to him, "I would not do anything to you myself, but my brother is the one that kills all the Indians. I tell you what we'll do. We have a big dish and I will hide you under it. I will put it upside down." As soon as the Indian hid under this big dish the big Windigo came. His brother was outside the camp, he said to his brother, "You have a visitor." His brother said, "No." "Yes," the Windigo said, "There's somebody here. Now, I tell you what we'll do, we will have a wrestle, and if you put me down I will believe you, that there is nobody here."

They wrestled, and the kind-hearted man put this big Windigo (his brother) down, and the Windigo said, "I believe you now; there is no one here." So next morning he went away again to look for somebody that he'd kill to eat. He'd kill all the Indians and eat them. The kind-hearted man took the Indian to their village. He said to him. "You will go ahead and I will take the same steps you take, so my brother Windigo won't see your steps. If he knows you are here he will follow you till he gets you." This kind-hearted man took the Indian to his own home, and hurried back to the camp before the Windigo came back. The end of the story of the Windigo and the Indian.

No. 73.

NANABUSH (No. 10).

Told by Mrs. Sampson Ingersoll.

Nanbush was camping alone and he made a big fire and stood against it and burnt his *anus*. He said to his *anus*, "You will yell 'Chee chee.' You didn't tell me you were burnt." Nanbush went out with his *anus* all blood. He went to the bush to look for those red whips (switches) as you can see them in the spring. The Indians use them to stretch rats (muskrat skins). His guts (entrails) were hanging out of his *anus*. He went to a tree and found a (vine). You know this stick, that goes around (a tree) like a snake. He said, "These is my guts; my grandchildren will eat this in the later days." The end of this Nanbush story.

Note by G. E. L.—See pp. 111, 177, 413, W. Jones, Ojibwa Texts, Part 1., Vol. VII. Publications American Ethnological Society.

No. 74.

(The Flood Myth.)

NANABUSH AND THE FLOOD (No. 11).

Told by Mrs. Sampson Ingersoll.

Nanbush was living alone, camping, and a flood came. He made a big raft out of cedar, and when he finished the big raft he called for all creatures, birds and animals, and even the big serpents, snakes and lizards. The big serpents were lying on the raft, taking sun baths. Nanbush asked the loon to look for land, and the loon was away all night. He didn't find land at all. Nanbush thought he'd ask the night hawk to look for land, and the night hawk was away all night, too: he didn't find land either. Nanbush thought he'd ask the kingfisher to look for land, and the kingfisher was away all night, and about daylight came back with a green leaf in his bill. When Nanbush saw the kingfisher coming he called the rest of his children (birds, beasts, etc.) and said to them, "The kingfisher has got something." He thought a lot of this bird because he was the one that found land. Nanbush went to him and put all the feathers up on the kingfisher's head (made them into a crest), and put beads around his neck, as you can see the kingfisher now has something white around his neck; these are the beads Nanbush put round his neck. Nanbush asked the beaver to dive down in the water and see if he could find land, but the beaver found no land. Nanbush asked the otter to dive down

in the water and look all over for land. The otter came back without finding any land. Nanbush asked the muskrat to look for land, and the muskrat didn't find any land. Nanbush told the muskrat to rest for a while. He petted the muskrat for a while and dried his hair. Nanbush told the muskrat to go again and look for land. The muskrat went away again, went all over under the water and returned to Nanbush. The muskrat was just about dead. Nanbush picked him up and took his little hand (paw) and found something there, a piece of land (earth or mud). Nanbush put this piece of land to dry, and took the muskrat and blew in its mouth and the muskrat came to life. Nanbush took the land that the muskrat brought and blew on it and said, "There will be islands and lands, and mountains and lakes and seas." The end of this Nanbush story.

Notes by G. E. L.—See "History of the Ojibway Indians," by Peter Jones (Kahkewaquonaby), 1861, p. 33, as to one version of the origin of the flood. W. S. Piper, 1918, Fort William, Ontario, in "A Summer Vacation on North Shore of Lake Superior," pp. 16-17, gives another version. W. Jones, Ojibwa Texts, 1917, gives other versions still, see pp. 111, 151, 261, 271, 405.

For other Ojibwa Flood Myths, see Plain Cree Tales, Alanson Skinner, p. 346, Journal of American Folk Lore, Vol. XXIX, No. CXIII. Some Myths and Tales of the Ojibwa of South Eastern Ontario, Paul Radin, Memoir 48, p. 23, Geological Survey, Ottawa, 1914. Myths and Folk Lore of the Timiskaming, Algonquin, and Timagami Ojibwa, F. G. Speck, p. 36, Memoir 71, Geological Survey, Ottawa, 1915.

Legendary Lore of Lake Superior, by Gay Page, p. 25. 7th Annual Report, Thunder Bay Historical Society, 1916.

No. 75.

The Seven Heads.

Told by Lottie Marsden.

A long time ago an Indian and his wife were camping in the woods. It was winter time. The Indian would go fishing. He would make a hole in the ice and use a fishing line. At first he didn't kill hardly anything till about a week's time, then he began to have very good luck. One day he was taking a rest in his camp, his fish bait was hanging up over his head, and while he was looking at it he saw it shining like silver. When he went to sleep he had a dream. Some one came and told him, "I will tell you how to catch the whitefish. To-morrow you will catch one fish, but you won't eat the fish yourself, and the water you will use to clean the fish with you will put in a certain place and the scales in a certain place, and the bones in a certain place, and you will feed the fish to your horse and your dog and your wife." The Indian did all what he dreamed of, and that night his wife had two twin boys, and his dog had two nice little pups, and when he went to the stable where his horse was he found two little colts. He took a look around, and where he put the scales he found silver, and where he put the bones he found knives, guns, and swords there, and where he spilt the water which he cleaned the fish with he found a nice little pond there. These two twin boys grew up and each one of those boys owned one horse and one dog (the two colts and the two pups grew up too) and they used to go to this pond, where these boys made a garden apiece, to see which would have the nicest. They planted nice flowers, and in the evening they'd go on horseback (to their gardens) with their dogs, and had their swords too, what their father found where he spilt the fish bones.

One of the boys took a notion to go away, and he told his brother, "You will look after my garden, and if you see the flowers withered you will think 'My brother is killed.'" So he went away the next morning on horseback. He travelled all day through the woods, and towards evening came to a big city. He travelled the edge of the bush till he came to a little shanty. He rapped at the door and found an old woman living there alone. He stayed there that night and had his supper. The woman gave him a nice supper of corn soup. After supper the woman told him about this city. "There was someone living there that had seven heads and some one (person) has to go every day and he eats them. To-morrow morning we will see a lady, 'the king's daughter,' go by here to give herself up to the one that eats people, 'The Seven Headed Man.' His Indian name is 'Mnidwainsh' (or Xmidwaish)." Next morning the young man went to the road where the young lady was going by, and shortly after he got there he saw the king's daughter coming crying. The young man said to her, "Where are you going?" The young lady said to him, "Well, I am going over there to give my body to that man that eats people." The young man said, "I will go with you." The girl said to the young man, "No, he will kill you too if you go with me," but the young man went with the girl. He wasn't afraid of the Seven Headed Man. When they got so far they saw the Seven Headed Man, who was very glad that he'd have two people to eat. When they got close the young man hit the heads with his sword. One of the heads said, "Wait awhile," and the young man didn't cut this head off. This head took the young man away down in the ground. They went through many doors, as soon as they went through one door there would be another door. The doors were all iron. There was another door to go through: the young man could feel the heat. It was very hot there. The young man said to the Head, "Look out, you are going to kill me." This young man thought of his dog, which he left with his horse and the young girl (the king's daughter). He called for his dog. The dog opened all the doors. His brother whom he left behind to keep watch on his garden, and the time the young man was taken away down in the ground, his brother saw the garden wither, so he thought to himself, "My brother is now killed."

When the young man came out of the ground he cut off all the tongues of the Seven Head Man and took them with him. The young man took this girl (the king's daughter) as his wife. He went to sleep. The girl cut the young man's hair while he was asleep, and when the young man woke up he said to the girl, "You can go home now," and the young girl went to start for home. There was a blacksmith living along the road and he wouldn't let the girl go by. He sent her back because he was afraid the Seven Headed Man would kill them all. This young girl told him, "The Seven Headed Man is now killed," and the blacksmith went with this girl to where the Seven Headed Man was killed. The blacksmith took the heads which the young Indian man cut off and went with the king's daughter and told the king that he (the blacksmith) had killed the Seven Headed Man. He was singing on his way. The king was very glad and told the blacksmith to marry his daughter. They were to have a party. Just when they were having it the young Indian man came in, who had killed the Seven Headed Man. Of course the blacksmith told a lie to the king. The young Indian man said to the blacksmith, "Where are the tongues?" The blacksmith was kicked out of the house, because he told a lie, and all the stuff (food) they had on the table was thrown out, and some fresh stuff (food) got to have another party. This young Indian man married the king's daughter, and after they got married they stayed with the king. At night they had a room upstairs, and the

woman said to her husband, "You see that light over there. Don't you ever go there!" but the young man went just the same. An old woman was living there alone, and when this young man got there the old woman said to this young married man, "Tie your dog!" He was going to kill this old woman, but she said to him "Wait for a while," and the young man did. The old woman pulled off her hair and tied the three of them and they all died. The man, the horse, and the dog, because this man didn't listen to his wife. She told him never to go there.

This young man's brother saw that the garden (the dead man's) was withered again, so he went and came to the house where the king lived, and the king's daughter thought a lot of him. Of course she thought this was her husband, and at night they went upstairs to bed. The young man didn't like to sleep with this woman. He thought to himself, "This must be my brother's wife." The woman said to him, "Do you see that light there? Don't you ever go there!" He went the next morning and found his brother there. He cut the hair off where it was tied (on the horse, the dog, and the man), and they all came to life. He killed the old woman, and these two brothers went home. The one that got married first thought, "I bet he slept with my wife," so he cut the head of his brother with his sword. After he killed him he went to the old woman's place and looked for medicine. He thought rubbing oil on the man's neck would bring him to life. It was so, and the two boys went home (with the two dogs and the two horses). The end.

Notes by G. E. L.

See story of "Two Brothers," p. 330, Vol. XXIX, No. CXIII, *Journal of American Folk Lore*, July-Sept., 1916.

The blacksmith's name was "Nmidohbackobick," which means in English "God, Iron." "Nmidoh" is a variant of "Manitou" used in Rama.

The Seven Headed Man's name in Indian was "Nmidwaish" or "Mnidwaish," both forms being used, meaning not obtained. "Nmid" and "Mnid" being other Rama variants of Manitou.

For other variants of "Manitou" see the following:—

Mineto } p. 1, Memoir 48, Some Myths and Tales of the Ojibwa of South-
Manito } Eastern Ontario. Paul Radin. Geological Survey, Ottawa, Ont.

Munidoo.—1917 Ont. Archæological Report, p. 55. Another Rama variant. "Cahiagne or Mitche-kun-ing." J. Hugh Hammond.

Mah ne do.—P. 144, Vol. 16, No. 4, Wisconsin Archæologist.

Ma'nitu.—Memoir 71, p. 76, Myths and Folk Lore of the Timiskaming. Algonquin, and Timagami, Ojibwa. F. G. Speck.

Sha miniton.—P. 22, A Summer Vacation on North Shore of Lake Superior. W. S. Piper, Fort William, 1918.

Munedo.—Is sometimes used by Ojibwas.

Menutto } p. 38, Indians of Greater New York, by Alanson Skinner.
Menetto }

Manetto.—p. 43, No. 5 in The Little Histories of the U. S. Indians.

No. 76

THE GROUND HOG STORY.

Told by Lottie Marsden.

A long time ago there were some Indians coming along, and they came to a ground hog's den. They noticed only the old ones, but there had been five little ones. This is the story: The she ground hog had five little young ones. She was always afraid someone would kill them, and every time she'd go out she would say to her children, "There is a big snow storm," but it was in the summer time, and so the little ones were afraid to go out then. One day she said to her children, "Look for my lice," and she went to sleep. The little ones were lousing her and looked at her teeth and could see green grass on them, so they went out while the mother was sleeping. A fisher came and killed all the little ones. Just when he had them all killed the old ground hog woke up and went out to look for her children. She saw they were all killed. She looked for the fisher's little ones and she found them and did the same. Killed them all. The fisher got mad (angry), but the ground hog said, "You killed mine first." The end of the story.

No. 77.

THE BIG DEN.

Told by Lottie Marsden.

Not very far from here there is a Big Den. I asked my mother "What is that? It couldn't be a ground hog's den." "Well," said mother, "Your great-grandfather found all kinds of bones in that Den, and horns too. They (the Indians) put stones in it (filled it up). They were afraid of the Den, but the creature that lived there is now dead. He lived there a good many years ago, but he might come back to look for his horns, from near the end of the world." This place where we live, they say, was a very wild place at that time. While my great-grandfather was living here then, and now its all cleared, nothing to be afraid of, only witches. There are quite a few of them here yet. They think they are not known what they are, they pretend to be Christians. The end of this story.

No. 78.

THE YOUNG INDIAN.

Told by Lottie Marsden.

This young Indian was all the time travelling. One summer he went away back North, and towards fall he began to think of going back home. He had to walk a good many miles before he could reach the station. He was alone, and it was getting on to evening. He travelled at nights, of course it was no use of him to be afraid. He looked ahead of him and he saw an old man. When he got up to him he said, "Good night!" The old man wouldn't speak to him; then he began to be afraid of the old man. There was an old gravel-pit there, and that's

where the old man went. Just before the old man went in (into the gravel pit) he showed the young Indian what he (the old man) was. The young Indian could see fire come out of the old man's mouth. But the old man didn't harm the Indian boy. The boy was a very nice boy and a good Christian. The old man lived in the gravel-pit. The end.

No. 79.

THE TWO BOYS AND THE OLD MAN WITCH (WITCH STORY No. 12).

Told by Lottie Marsden.

There were two Indian boys out camping. It was in the month of August. The two boys would go out fishing, and one day when they were out they came to an island. They took a look around and saw a bark canoe, but there was nobody there. There was everything in the canoe, and one of the boys said, "We'll take these with us." The other said, "No! There might be a witch that owns these; or, the Old Boy." He meant the Devil. The little boy would not listen to the older one. He took a few of the things that were in the canoe, and they started off. Just when they landed where they camped they looked back. They saw a very ugly looking old man coming in his bark canoe. He said to the boys, "I want my things that you took." They gave him all his things, and he said to them, "You will see what I will do to you," but he never could do anything to these two boys. He was at them for one year. The boys watched for the witch all the time, and at last the witch got tired. He gave up then. This is the end of this old witch story.

No. 80.

THE TWO BROTHERS.

Told by Lottie Marsden.

There were two Indians from here (Rama) who left to go back North for the winter. They were two brothers, and were looking for work, so they travelled for some time till they came to a lumber camp, where they worked for a long time till one of them (the younger) took sick. The older one didn't know what to do. They were far away from home, and the older one thought to himself, "I will take my brother to an Indian village that is about 50 miles from here." So he hired a team to take his brother to the Indian village. When they got there it was just about sundown. They went to a house where an old woman was living and asked her if she would board them for a while till the younger brother got better. The old woman was very glad to keep them there, but the two brothers never had any sleep while they were there. This old woman was the worst kind of a witch. The brothers went to bed, but stayed just the same, could not sleep. On Sunday afternoon another old witch came in. She said to her mate, "I hear you got strangers here." "Yes," said the first old witch. Of course the two men were in bed and the two witches thought they were sleeping, so they talked there all afternoon. They talked about the ones they were going to kill next. The witch that came in said, "It won't take me one hour to kill all those. Watch these men, if they do any harm here before they leave, if they do so they will never be able to get home."

These two men were quite afraid then; they left that house the next morning. The sick man wasn't quite well. They used the old woman the best they could for fear she might kill them. When the two Indians reached Rama safe, they told this story. The end.

No. 81.

THE LION THAT STOLE A BABY.

Told by Lottie Marsden.

A long time ago there was quite a few campers of Indians. It was a very wild place where they camped, as it looked like if wild beasts would live there, but the campers were not afraid. One woman had a little baby. She went out of her camp and when she returned the little baby was gone. They all hunted around. They didn't know where the baby went. They saw a big hole near where they camped, and they began to think it must be the lion's (American panther) den, and that the lion stole the baby. They were afraid to go in the den, and at last the lion came and put the baby out, but before he put it out he smashed (with his paw) the poor baby's head to pieces. The poor mother felt so awfully bad that she nearly died herself. They buried the poor baby. The end of the lion story.

Note by G. E. L.—See p. 18, Memoir 48, Geological Survey, Ottawa. "Some Myths and Tales of the Ojibwa, South-Eastern Ontario." Paul Radin. 1914. *Re* Lions Stealing Children.

No. 82.

THE YOUNG MAN OF RAMA.

Told by Lottie Marsden.

Some time ago a young man left Rama to go visiting an Indian place called Moore's Point. When he got there he was very sorry such Indians were living. They never hear the word of God, nor do they believe in religion. They do nothing but drink all the time, children and all. They have about 25 bottles of whiskey every day for about a week. Sometimes they let their children go naked and with bare feet. Whenever they have money they never think of buying clothes for their children. They were all witches too, as this young man was saying. There was an old man there. He said to this young man, "You are the worst kind of people there in Rama." This young man didn't want to let on that he heard, as he was afraid of the old man, but the old man made him mad (annoyed) at last, and he said to the old man, "I never saw such people in my life as I do now." The old man says, "Don't you say anything to me! Do you know, if you shoot me you can't kill me!" The young man was afraid of him then. The old man said, "You will find out; I won't forget this." Shortly after the young man got back here in Rama, one night he had a dream that a blood-sucker was on his hand. He tried to get it off, but he couldn't; so he got a knife and scraped it off. The next morning the young man's hand was all swelled up, so that he wasn't able to work for some time. He asked one old man if he'd cure

his hand. This old man had some kind of medicine with which he could cure a person by putting the medicine on the hand. The young man got better, but he never goes back to the Moore Point. The end.

Note by G. E. L.—Moore's Point is near Sault Ste. Marie, Ont.

No. 83.

The Story of the Two Boys Playing in the Bush.

Told by Lottie Marsden.

A long time ago there were two Indian boys playing in the bush. Their names were Joe and Paul. Paul said to his brother, "You know what I think?" "No," said Joe. "Well, I will get up this tree and I'll be a porcupine, and you will cut the tree down when I am up there." "No," said Joe, "I wouldn't like to do that, but you can climb the tree, I won't cut it down; I am afraid you might hurt yourself." "No," said Paul. "I will say my prayers before I go up and I will be quite sure I won't get hurt." "Well! You can try it," said Joe. "But don't blame me for it if you get hurt." So Paul went up and Joe cut the tree down and Paul was badly hurt: had a big cut on his head. Joe took him home and told his folks that he didn't want to cut the tree down, but Paul coaxed him. For a long time poor Paul was very sick. They had to get a doctor to put in three stitches. He was laid up for two weeks. The end.

No. 84.

The Old Couple Visited by the Devil.

Told by Lottie Marsden.

This story was told to me some years ago. There is an Indian village on the Georgian Bay, and the Indians living there are not Christians. They do not believe in heaven or hell. One night all the young people were away to a dance where they play cards and do everything else. The old people were alone. It was in the wintertime, but there wasn't very much snow. The old man went out to see if the young folk were coming back. He heard some one coming which sounded like horses' feet on the rocks. He came in and told his wife. The old lady was afraid. They sat waiting to see who would come in, and after a while a young man came in. He was a stranger. They didn't know who he was. He seemed to know all their business. He said to them, "You are not to the dance?" They were surprised that he knew everything that went on in the village. He said to them, "I haven't known you for a long time." The old lady was sitting behind the stove. She didn't like to look at him. She began to know who he was then. He offered the old man his overcoat, and the old woman a pair of new shoes, but they didn't take them. He sat there for some time and said to them, "I can't beat (conquer) you." He went out, and the two old people began to be Christians, after the Devil's visit. He said before he went out, "I will come back again sometime." They were afraid all the time, and these two old people prayed all the time but the Devil never came back. The end.

No. 85.

THE INDIAN AND THE THUNDER.

Told by Mrs. Sampson Ingersoll.

One time there was an Indian hunting in his canoe. It came on a big thunderstorm, and the Indian went to the shore and stood against a big pine tree. The thunder struck the tree where the Indian was but did not kill him. The thunder came down and took the Indian up and told him that he (the Thunder) was sorry he struck him (the Indian). The Thunder put the Indian in his (the Indian's) canoe and took him home. When the Indian got home he died. The end of the story.

No. 86.

THE BIG THUNDER BIRD (No. 4).

Told by Mrs. Sampson Ingersoll.

A long time ago there was a bay, nobody was allowed to cross this bay towards evening. One Indian, he was an old man, went across towards evening, and when he got halfways on the ice, there came a big cloud. A big Thunder Bird came on the cloud and took the Indian away, and when he came to know where he was, he was on the end of a big mountain. He saw lots of young thunder birds, and one of them came close to him. This Indian killed this young thunder bird and cleaned (took the insides out) it all up, and went inside of this big bird. Before he went in he put it on the edge of the mountain, and the bird fell down. Where they fell it was an island, and the Indian got out of the bird and took a look around. He was wondering where he was. Someone came and spoke to him, and said "There's someone on this island that is going to kill you to-night, I will tell you what to do. You make lots of dolls of cedar, you will make ten of these and tie them so as they look like Indians, and towards night you will run around this island and you will take the dolls with you, and when he gets near you, you will throw one of these dolls back and he will fight with the doll for a long time and give you a chance to get far away from him, and when you see daybreak coming, you will think that you are beating this wild creature that's going to kill you." It came daylight and someone came and spoke to him again and told him "I will take you where the Indians are." So it took him away from that island and they came to an Indian who was making a leg. He put it on his leg to see if he had made it the right shape, and this Indian said, "I am making my leg." The end of the story.

(Compare with No. 4, Report, 1915, and No. 37, Report, 1916. G. E. L.)

No. 87.

THE INDIAN AND THE DIAMOND.

Told by Lottie Marsden.

Four Indians started off to hunt and they all had very good luck. One of the Indians found a stone shining like fire. He threw it into the lake. He said to the rest, "That must be the Devil-stone," but it was a diamond he found.

He'd have been rich if he had only known that this was a diamond that he found. The very night that he threw the stone in the lake he had a dream, that he had found diamonds, that he was in his canoe, that he went under the water, that others took him down where everything was shining, and somebody told him while he was under the water, "That stone you threw into the lake would have made you rich, if you had known what it was. You would never have to do a day's work in your later days, but you will work hard all the days of your life, I am very sorry for you," said the one that spoke to him while he was under the water. This old man cried all the time till he died. He was sorry he threw that stone in the lake, it would have made him rich.

No. 88.

The Indian Girl and the Bear.

Told by Mrs. Lottie Marsden.

A long time ago an Indian girl got lost in the bush. She travelled farther away instead of going back. She went to the place where the wild beasts were, and she met a bear. The bear was glad to meet this girl. He didn't want to kill her, only made up his mind that he'd keep her there where he lived. It was a very nice place but the Indian girl didn't like it. She had to stay just the same. If she tried to go away the bear would have killed her. Well, she stayed with the bear till the spring, and one day while the bear was away the hunters came. This girl told them that she was lost in the fall, and she lived with the bear all winter. She had to eat bark off the trees. "Never mind," said the hunters, "we will kill this bear and we'll eat him up." They asked the girl "When will he be back." "In the evening," she said. So they watched. "There he comes," said one of the Indians. The bear was coming as fast as he could. He intended to kill these Indians, but they killed him and took the poor girl away to their reserve. The girl would not eat the bear meat. Of course some Indians eat bears yet. The Indians in that reserve had a big feast of this bear. The Indian girl was ashamed of herself that she had lived with this bear. The end of the story.

No. 89.

The Wrecked Indians and the Windigoes (No. 4).

Told by Lottie Marsden.

Some time ago there was a reserve of Indians, and there were four families that left to go far away for the summer. The Indians made a big sail boat, and they all started for the trip. They travelled for a long time, and one time their boat got on a rock. It was near an island. The island was very big and the Indians went there. When they all got out of the boat, there came lots of Windigoes who intended to kill the Indians. But the Indians gave them gold rings and gold brooches. The Windigoes soon made friends with the Indians. They went to the bush and killed a deer and gave it to the Indians, and were surprised that the Indians would cook the meat before they eat it. The Windigoes would eat meat raw. Those Indians lived on that island for a long time, until

one day they saw a ship far away, they waved a flag and it came to the island after the Indians. The Windigoes were very sorry when the Indians left there. They wanted to go in the boat too, but the white men who were in the ship were afraid of them. Only for those gold rings and brooches the Windigoes would have killed the Indians. The end of the story.

No. 90.

THE MAN WHO COULD TURN TO A SNAKE.

Told by Lottie Marsden.

In Georgina Island, a long time ago, there was an Indian who could turn to a snake whenever he liked. He lived near the lake shore. When he would go out of his house, he'd go on his belly to the lake, and when he'd reach the water he'd dive down and go wherever he liked. He would go visiting the Indians on the other islands. Nobody would say anything to him. Everybody was afraid of him. His name was "Post" in English, but his Indian name was "Snake," because he was more of a snake than a person. He lived till he was very old.

The end of the story of Post who would turn to a snake whenever he liked.

No. 91.

THE INDIAN WOMAN LOST IN THE BUSH.

Told by Mrs. Lottie Marsden.

One time there was an Indian woman got lost in the bush. She didn't know what to do. Just when she was thinking, someone came and spoke to her and told her what to do, and what to eat. Told her to eat May flower roots and to lick the juice of wild onions (leeks). Well this woman lived quite awhile alone in the bush until one day a man who was hunting found her and took her home to his camp. He had a wife of his own but he made up his mind that he was going to have two wives. His first wife didn't like this, and one day while the Indian was away hunting the two women had a quarrel and one of them was killed. The other one was all right (not hurt). She buried the woman she killed and told her husband that the woman went away. The end of the story of the man who had two wives. (This was Nanbush who spoke to the woman and told her what to eat.)

No. 92.

THE LION AND THE TWO CHILDREN.

Told by Lottie Marsden.

Another story about the lion, some time ago an Indian and his wife were camping, they had two children. The Indian was cleaning fish and wasn't very far from where the babies were. When he had the fish cleaned he turned around to look for his two babies, they were gone. The parents searched around all over and found a place where the lion lived. About twenty-five Indians got ready to

dig this place where the lion lived. They dug quite a way and could hear the babies crying. All these Indians had swords made of cedar, one of these Indians was a Lynx. He went and dived down into the water, of course where the lion lived was on the edge of the sea-shore. The man saw a white dog first and the white dog spoke to the lion and told him to give the babies up, but before he gave them up he killed them, and those Indians killed the lion. They took the two dead babies and buried them. They say it was an awful looking place where the lion lived, but they killed the lion. The end of the lion story.

Note by G. E. L.—*Re* lions stealing children, see p. 18, Memoir 48, Geological Survey, Ottawa, Ont. Some Myths and Tales of the Ojibwa of South-eastern Ontario. Paul Radin, 1914.

No. 93.

The Two Women Who Crossed the Bay.

Told by Mrs. Lottie Marsden.

Did you ever hear of the Indian woman and her daughter, who crossed the bay where nobody was allowed to go across? Well, the woman and her daughter crossed this bay safely. The girl said to her mother, "We go across, I will make two paddles." They made the paddles and started to go across, when they got halfways somebody's hand got hold of the canoe, and the girl cut the hand off. It was a lion's hand, and he let go the canoe. The girl and her mother got to shore safe. Everybody was surprised that the girl and her mother reached the shore safely. The end of the story.

Notes by G. E. L.—The lion, or white lion, or white lynx, as he is sometimes spoken of was a "maniton" who lived in lakes. See p. 95, "Ojibwa Texts," W. Jones, Vol. VII, Pt. 1, Publications of the American Ethnological Society, 1917, he is referred to as "Chief of the Great Lynxes, the great water monster of the sea, lakes and rivers," p. 145, as "Chief of the big lynxes," ditto, p. 255.

White-Lynx, see p. 345, Vol. XXIX, July-Sept., 1916, No. CXIII, *Journal of American Folk Lore*, "Plain Cree Tales," by Alanson Skinner.

Great Lynx upsetting women in a canoe, p. 387, ditto, Ojibwa Tales from North Shore, Lake Superior, Wm. Jones.

Pp. 20, 45, 82, Memoir 48, Geological Survey. Some Myths and Tales of the Ojibwa, South-eastern Ontario, Paul Radin, and p. 35, Memoir 71, Myths and Folk Lore of the Timiskaming, Algonquin and Timagami Ojibwa, F. G. Speck, refer to these lions.

No. 94.

The Twins and the Two Pups.

Told by Lottie Marsden.

One time there was an Indian and he was part French. He worked for a rich man. There was an Indian squaw who worked for this man too. One night the rich man's wife had two twins, and the very same night there were two little pups born. The old squaw made up her mind that she was going

to steal these two twins and tell the rich man's wife that the pups are the ones she gave birth to. Well, she showed the pups to the woman and told her "These are your two children." The woman was well satisfied. The old squaw hid the two twins and kept them till they were quite big boys who didn't know the difference. They were very nice boys but their mother was a very ugly looking old lady. The Indian helped the squaw to steal the twins. The end of the story.

No. 95.

The Dwarfs (No. 1).

Told by Mrs. Lottie Marsden.

Did you ever hear of the Indians telling the story that there are little Indians only two feet high, and persons are not allowed to see those little Indians only when something is going to happen, but a long time ago they saw these little Indians very often!

One very aged old woman was travelling alone on the bush road and she saw ahead of her a little child. She was very glad it disappeared right there, and there where the little Indian was she smelled all kinds of nice perfumed flowers, but she wasn't allowed to catch this little Indian. It was only two feet high. The poor Indian woman knew right away that somebody was going to die, and she lost her husband. The end of the aged old Indian woman story.

No. 96.

The Scugog Island Witch (No. 13).

Told by Lottie Marsden.

On Scugog Island some time ago there was an old Indian woman. She had lots of children. She was an old witch. Even her children were afraid of her. One morning, it was in the winter time, she wanted a pair of new shoes. She said to one of her sons, "I want those shoes to-day, if I don't get them there won't be a soul (alive) in this house in four days." This young man was afraid then that she might kill him. Of course she was an old witch, so the young man got ready to go to the nearest town. He skated across, this was Xmas eve and the old witch wanted the pair of shoes for Xmas. She didn't know that people all around knew she was an old witch. The poor young man when he was coming back, went too near the river, the ice was thin there and he fell in, and people that lived near could hear him yelling for help. It was a very stormy night and they could not find out just where he was. The next morning, Xmas, they looked for him, they only found the pair of shoes on the ice, and the old witch had all the blame, but the people didn't say much to her, so she took sick and she yelled all the time "I am burning." She died very unhappy. Everybody was afraid of her. She was buried, and never was known no more of her witch business. The end of the story.

Note by G. E. L.—Reserve on Scugog Island, Lake Scugog, Victoria Co., Ont.

No. 97.

THE WITCH THAT DIED TWICE.

Told by Lottie Marsden.

In Georgina Island there was an old witch. She died for one day and one night, and everybody was afraid when she died and came to life again. She lived another month before she died the second time. She had to tell of all the people she killed, but that didn't save her soul. Well, when she died the second time they kept her body for nearly one week for fear that she'd come to life again, but she didn't. Well, this woman's name in English was "Post," and her Indian name was "Annannan." After she was buried nobody would go out of their houses alone at night. They were afraid of the old witch. The end of the witch story.

No. 98.

THE OWL WITCH (No. 14).

Told by Lottie Marsden.

My great grandfather told me this story. He had a sister who was a very nice looking girl. She took sick one day and died that night. They knew it was the witch that killed her. The doctor couldn't do anything for her. They say the witch would always come to the grave the first night the person is buried. Well, my grandfather said that he would watch the grave that night, and about 12 o'clock he saw a light coming, and it went right to the grave. This was an owl which opened the grave and went after the little fingers of the dead person. My grandfather stood there watching the old witch what he'd do. My grandfather had his shot gun and shot the owl. The next morning they heard that there was an old man died. This was the owl that went to the grave. That old man wasn't a bit sick the night before. If he hadn't went to the grave he would have been all right. This happened in Georgina Island some time ago. The end of the witch story.

No. 99.

THE OLD BACHELOR'S WITCH STORY (No. 15).

Told by Lottie Marsden.

An old bachelor told me this story, he said, "When I was young I had a nice young girl. I thought a lot of her and I used to go to see her every night. One night I went to see her, I said 'let's go for a walk.' So we took a walk on the track. We came back and sat down on the bank. We sat there for a long time, and when it got about midnight we saw a light coming just to where we were, and I got frightened, but my girl laughed at me. She says 'I am not afraid of that.' It was a cat. Fire came out of her mouth and it came closer to where I was myself. My girl said to me 'don't be afraid,' and here it was herself that was the witch. From that time I did my best to please her and went with her a long time but I knew she was a witch, and I was afraid I'd make her mad (angry) and she'd kill me. She took sick one summer and died. I tell you I wasn't sorry for her. I was safe then." The end of the story. The Bachelor is dead now.

No. 100.

THE INDIAN BOY AND THE BEAR.

Told by Lottie Marsden.

Did you ever hear the story about the Indian boy who got lost while looking for the cows? This was about five years ago. The boy wasn't very far from his home, but he couldn't find the way just the same. Well, the day he got lost, it was in the morning and he travelled all day, and got tired in the evening and sat down to have a rest. A bear came along and took him into a big stub, where the bear lived, but the bear didn't do anything to the boy. He got strawberries for the boy to eat. The boy never saw the bear in the daytime, for the bear would go away in the morning and come back in the evening. The boy lived with the bear for ten days. The boy heard somebody calling him, but he wouldn't go. He soon got wild. When they found him they couldn't go near him, he'd bite them. It wasn't his own folks that found him first. They couldn't get him tamed for a long time. He acted like a wild beast and they couldn't get him to eat anything. He would only drink milk at first, and the poor boy wouldn't speak to his mother or father. They had to lock him up all the time. The end of the story.

Note by G. E. L.—Stub=a standing dead tree trunk.

No. 101.

THE TWO SQUAWS CANOEING.

Told by Lottie Marsden.

A long time ago there were two Indian women out canoeing. This was a wild place where nobody lived near. While they were canoeing they heard a sheep bawling (bleating) away up on the hill on the rocks. One of the women answered the sheep, she bawled (bleated) too. The other woman said "Don't, that's not a sheep, maybe its someone going to kill us." The other woman quit answering the sheep, and when they got far away on the river where they were paddling they heard something coming under the water, and it struck the woman's paddle, who answered the sheep. It sounded like a finger ring. The other woman said, "Now do you see, I told you not to answer that sheep. That wasn't a sheep at all. That's somebody that's going to kill us." Well, towards evening they got to the place they were going to camp, and the next night the woman had a dream. She dreamt that it was a man that yelled like a sheep, and if the ring had fallen into their canoe, this man would have owned these two Indian women. But the ring didn't fall into the canoe. The end of the two squaws and their canoe paddling.

No. 102.

THE LION WHO STOLE THE INDIAN GIRL.

Told by Lottie Marsden.

A long time ago in Muskoka Lakes, there was an Indian and his wife camping. They had one daughter. This girl had a camp of her own, and sometimes they (the parents) wouldn't go to see her for two or three days. The Indian said to his wife "go and see our girl." The old squaw says "wait

till to-morrow." The next day she said the same words "wait till to-morrow." She went the next day and her daughter was gone. She came to the camp and told her husband that their daughter was gone. So they started off to look for her, and they found her, where she lived. The house was all gold inside. She told her parents. "This is where I am living now. When you want to see me, you can come here." She had one child, she said, "My husband has gone to the council where all the kings are having the council."

The old folks started for home, but they were never seen any place. Maybe the lion took the old folks away too. The end of this lion story.

Note by G. E. L.—*Re* lion stealing children, see p. 18, Memoir 48, Geological Survey.

No. 103.

Ojibwa and Mohawks (No. 10).

Told by Lottie Marsden.

Long time ago two Indian girls and their brother were camping together. The Indian boy would go hunting every day and one evening he didn't come back. The two girls kept waiting, and one of the girls got very lonesome for her brother, so she made up her mind that she'd go fasting for ten days, that she might know where her brother had gone. Her sister would bring her food but she wouldn't take it. On the tenth day she got very weak, and on the eleventh day she saw someone coming. It was a woman, and she said to the girl, "What do you do this for, you will starve yourself." "Well, I am sorry my brother has gone away." "Well I will tell you where your brother is. He is killed by the Mohawks, and I will tell you what we will do. You come with me and we will kill the Mohawks. When we get near to their settlement, you will shout and they will all faint, and we'll kill them all while they are fainted. Hit them on their heads with our swords." When they got near to the Mohawk villages all the Mohawks would get the fire ready and the Mohawk women would get the water ready to cook them, when they saw these two Indian women (Ojibwas) coming, but these Indian (Ojibwa) women would shout, and the Mohawks all fainted away, and were all killed. The two Ojibwa women just left two families. There was one big Mohawk woman they couldn't kill, so they took her with them. She was wild looking and had hair all on her body. They took her to a certain place to kill her. They cut her head off. She was still alive. They cut her legs and arms off, and cut the body to pieces and cooked it, but it was still moving. They then went home. The end of the two Indian girls and their brother story.

No. 104.

The Windigo (No. 5).

Told by Lottie Marsden.

One time long ago a big Windigo stole an Indian boy, but the boy was too thin, so the Windigo didn't eat him up right away, but he travelled with the Indian boy waiting for him till he'd get fat. The Windigo had a knife and

he'd cut the boy on the hand to see if he was fat enough to eat, but the boy didn't get fat. They travelled too much. One day they came to an Indian village and the Windigo sent the boy to the Indian village to get some things for him to eat. He just gave the boy so much time to go there and back. The boy told the Indians that the Windigo was near them, and showed them his hand where the Windigo cut him to see if he was fat enough to eat. They heard the Windigo calling the boy. He said to the boy "Hurry up. Don't tell lies to those Indians." All of these Indians went to where the Windigo was and cut off his legs. They went back again to see if he was dead. He wasn't dead. He was eating the juice (marrow) from the inside of the bones of his legs that were cut off. The Indians asked the Windigo if there was any fat on them. He said "You bet there is. I have eaten lots of Indians, no wonder they are fat." The Indians then killed him and cut him to pieces. The end of this Giant Windigo.

Note.—Compare with 133.

No. 105.

THE WINDIGO (No. 6).

Told by Lottie Marsden.

A long time ago an Indian was hunting. He was in a very wild place where nobody would be near. He saw a foot track, very big foot track, and he followed the track for a long ways off till he came to a clearance. He saw a camp not far away, and he thought to himself, "I will go there and look for something to eat." So he went and rapped at the door. A woman came out and said to the hunter, "Why do you come here, for this is where the Windigo lives?" "Well, I am very hungry," said the hunter to the giant's wife. "Well, he will kill you for sure. Go away! He will soon be back now." "Well, give me some thing to eat right away, and I will hide under the chair when he comes so he won't see me." The Indian asked the Windigo's wife, "What does he generally ask you to do for him when he comes?" "Well, he always asks me to scratch him all over his body." "Well, you ask him where he's got the sorest spot." Well, the hunter hid under the chair and the Windigo came in. He said, "I smell some fresh meat." His wife says to him, "It must be the meat you've got with you. What did you bring to-day?" Well, the Windigo had his supper, and after his supper he asked his wife to scratch him all over his body again. She asked him, "Where had he the sorest spot?" He said "Between my shoulders." The Indian hunter got up and hit him where he had the sorest spot with his little axe. The Windigo's wife was very glad that the Windigo was killed, for she was always afraid of him herself. She then lived with the Indian hunter. They lived there for a long time. The end of the Giant Windigo.

No. 106.

NANABUSH AND THE YOUNG MAN AND WIFE (No. 11).

Told by Lottie Marsden.

Once upon a time an Indian and his wife were camping. They had one son who got married, and shortly afterwards his wife took sick and died. The son felt awful bad. He was told that the soul will go away in three days time. He watched

his dead wife and he did see the soul go away. He followed it all day, but he never caught it. Towards evening she (the wife's soul) went into a big, long house. This young man saw an old man sitting there, and the old man asked him, "Who are you after?" The young man said, "I am after my wife." The old man told the young man, "You will never catch your wife's soul, but I will tell you what you can do. They always have a big dance when they have new souls in there; I will help you to catch your wife." In the evening they both went away and they saw a big bonfire, and these souls were dancing around the fire. That's what they always do when they have newcomers. They went near where these souls were dancing, and the young man could notice his wife, but she didn't like to go near them. They caught her and put her into a little box. The old man told the young man, "She will cry when you put her in the box, and will ask you to let her go, but don't you do it. Keep her in your pocket. Don't let her go if she asks you. You will see a big bonfire and you will jump right in the middle of it." The young man did so, stayed in the long house all winter, but he thought it was only one night, and when he woke up he felt awful tight, he was dead too, but he didn't know it. He came to life again and his wife was still in the box. He found some matches there and some corn. He made a fire and some corn soup. His wife came to life and they both felt allright. They stayed there a while and both went home to the old folks. The end of the story.

The "Old Man" was Nanbush. Compare with No. 18 Report, 1915.

No. 107.

THE PAIR OF WITCHES, LIKE BEARS; OR, THE DOG FIGHT STORY.
(WITCH STORY No. 16.)

Told by Lottie Marsden.

Once upon a time, years ago, there was an old Indian and his squaw, both of whom were witches. At night certain people saw them going round as a pair of bears.

One day the old man's son's dog got into a fight with another young fellow's dog. This young fellow threw a stone and killed the old witch's son's dog. A couple of days after this young fellow went crazy, as this witch was now witching (bewitching) him. So the young fellow's father picked up his tomahawk and went to the old witch's wigwam and told the old witch if he didn't quit making his son crazy that he'd kill him right there, so the old witch told this man that when he got home his son would be all right. When the man got home his boy was in his right senses again. The end of the witch story.

No. 108.

THE ROBBER INDIANS.

Told by Lottie Marsden.

A long time ago there was a reserve of Indians. Of course in every reserve they have to have one Indian for a chief. Well, this chief had two daughters. One night the two girls were alone, and that night their sweethearts had promised that they would not come. Well, about midnight they heard a rap at the door.

Those girls had revolvers and one of the girls shot the ear off one of the robbers, and the two men disappeared. Well, two nights after this happened, this girl's fellow came (the one that shot the ear off the robber). He says to this girl, "We'll go for a drive." He didn't go into the house at all. He only told his girl to get ready and go for a drive. Well, the girl was very glad to go with her sweetheart, so she got ready and they started off. They travelled on the Bush Road, where this girl never went before, and she began to be afraid of her fellow. She asked him where they were going, and he said to her, "Oh, we soon go back now." About daylight they got to a big hill, and the man got off, and said to the girl, "Do you see my ear, it's you that took that off." The girl said, "I didn't do that on purpose." He says to her, "You did; I'll fix you for this. Get off the rig." He caught hold of the girl and went to a place that looked like a root-house. When they got to the door, an old woman came out and said to her son, "You got her this time," and took the poor girl inside and took nearly all the clothes off her except a petticoat. They took her through about twenty doors, all made of iron. The poor girl saw piles of bones there in every room all the people they have killed, and in the first big room she saw a big pot on the stove full of grease. That's where they put a person in. Have the grease boiling, but they didn't put this girl in right away. They put her in the back room, and as she sat there she thought of a little jack knife she had in her pocket, and she thought that if she'd put some of the bones on the floor and make a pile of them to stand on she could reach the ceiling and make a hole through which she might escape from the burning grease. So she did, and she hurried up and got out. As soon as she got out the young man came into the room where she had been, but he didn't know how she got out, so he blamed his mother. He said to her, "Why didn't you kill the girl while I was away. I have a notion to kill you yourself." He hurried and hitched up his horse and looked for the girl. The girl kept herself hid, but run beside him to find her way back. He went as far as the girl lived and then went back. The girl got home safe and told her story. A lot of the Indians got ready and went where the robbers lived. They went with this girl, and they all took axes. When they got to the door the young man came out first. The girl said, "That's the man that tried to kill me," and they killed this young man first. They went in and told the old woman, "If you give us all the money you've got, we won't kill you." She kept on getting boxes full of bills and some silver. She said, "That's all there is." "Get some more," they said to her. She said, "That's all." "Get some more! If you don't get more, do you see these axes? We will kill you if you quit getting it." "This is all there is for sure this time," she said. She had her pot still boiling, full of grease, and they put her in the pot alive. They said to her, "We'll show you how the people suffered that you have killed in this pot." She yelled, but they didn't pity her. Well, after she died they took a look round. They found lots of jewellery of the people that were killed who were rich. There were piles of money yet what she was saving. They took all the money and divided it amongst themselves and left her in the pot. Those robbers were never known to have been living there until they took this poor girl there. The end of the story.

No. 109.

The Dwarfs, or Little Indians (No. 2).

Told by Mrs. Marjory St. Germain.

Once a long time ago lived an Indian with his wife and children. This Indian would go hunting every day, getting all kinds of game. So one day when out hunting he saw a wild Indian. This wild Indian was small, about two feet high. So they talked to each other for a long time, and they planned that they would live together. This wild Indian had also a wife and two children; one child was no bigger than six inches high, the other about one foot high. So this wild Indian and the other Indian and their wives and children lived together in a shack, which they built themselves out of poles and wood, as there was no lumber then.

So every day they went out hunting and the Indian would kill a deer and sometimes a bear, and the wild Indian would kill squirrels and rabbits. They had good luck every day, and when they would go home the wild Indian's wife would help him bring the squirrel in. Both of them could hardly lift it, and the Indian would pick up the squirrel and throw it on (the wild Indian's back). The Indian's wife would help her husband carrying the deer in. When they thought it was heavy the wild Indian would get hold of the deer and throw it on (the Indian's back). This little man had power to do anything he liked; also, if he wishes you good luck, you have always good luck. So each night they would cut up the meat and dry it. The wild Indian and his wife would hang up their meat to dry, which was only small bits, for they ate so little. It went on till spring; they had lots of dried meat. So again this wild Indian said to the Indian, "We are leaving now, and all I say is we had a fairly good time together all winter, I wish you good luck every day and be happy all your life." They disappeared and this Indian was happy and had good luck every day. This ends the story.

Note by G. E. L.—"Wild Indian" means non-reserve Indians or "bush" Indians in these stories.

No. 110.

An Indian Woman, Her Daughter-in-Law, and the King.

Told by Mrs. Marjory St. Germain.

Once a long time ago lived an old Indian woman and her two sons. These men got married and lived in the same place together. Shortly afterwards one of the men died and the other died pretty near the same time, so these women felt bad; also this old woman's husband had died years ago, when she and her parents were living in some other settlement, before she got married; also these young women (the sons' wives) had lived in another settlement before they got married. So this old squaw said to these women, "I am going away to where my parents used to live." One young woman said, "I'll go with you," and the other one followed. So they walked a long time, one of them (the young women) parted with the others, and before they parted she said to the old woman, "This is where I used to live." The prettiest one of the two young women said to the old woman, "I am going with you, and if you die I die also." So they travelled a long time, till they came to a place where this old woman used to live. They camped near the village, and there was a big field of crop near where they camped, so the old woman sent

the younger to go and pick a few potatoes and corn to cook. The men who were working in the field wondered who this young woman was. The king came to the field and his men ran up to him and asked him who the young woman was. The king said, "It's the old woman's girl that went away years ago She has come back again and this is her girl." The men went to work again and the king went home, and the young woman went home to her mother-in-law. In their camp they had all they wanted to eat, and every time the old woman saw the king coming she would send the young woman to pick corn. The king thought that she was rather nice-looking woman, but did not come so very close to her; he went home and asked the old folks (perhaps his parents) if they would allow him to marry a nice Indian girl. The old folks said, "All right," and he came to get her. The old woman followed behind. The king ordered some good clothes for this young woman and they got married and had a feast. After a while they had a baby boy born. This old Indian woman was so glad that she cared more for the baby than the young woman, she was that glad to see a baby, which she had never seen for a long time. This boy grew up to be a big man but he died, and the king and the young woman felt so bad that they died too. This ends the story.

No. 111.

An Indian Girl, the Bear Skin, and the Prince.

Told by Mrs. Marjory St. Germain.

Once, a long time ago, lived an Indian woman and her daughter in a shanty, or a shack, near the woods. There was a town close by, and in that town lived a king and a prince who was the king's son. This prince planned to get married to the nicest girl in that town. He sent bills (notices) throughout the town that every girl can come on such a day. This Indian woman heard about this, and told her daughter to go too. When the day came the girls came all dressed so nice, and some girls were real pretty. As they came they sat in a row, so the prince can choose whichever he thinks is the best looking. This Indian girl did not go until she thought the girls were all there. She went and peeped into the palace. The prince was walking up and down, picking out the nicest girl. He saw the Indian girl peeping in. He went out and brought her in. The girls ordered her out, as she was not fit. They say this Indian girl had a bear skin on, but she was far better looking than any of the girls dressed in silks and satin, but she was not dressed so nice in the bear skin. The prince told her to take off the bear skin and she did. While she was taking the bear skin off you could see her nice clothes underneath. She laid it aside and she and the prince stood by each other. She was dressed so nice in pretty colored silk that glosses and shines when she moved. All the girls looked at their clothes; not one of them had a nicer dress than she wore. They all got jealous of her, but the prince married her. They had a big time after the marriage took place and the dinner was served. The prince had invited all the people to this party and dance. The prince and the bride went on their honeymoon. They went on a big steamer and travelled weeks and weeks on the ocean, where there was no land to be seen. While on the voyage the bride wore man's clothes till they came to the place where they were going to. She took off these clothes and put on her other ones when they were coming to shore, and every one wondered how the nice lady got on the boat, she was so pretty and wore such nice clothes.

They got off the boat and went to where the prince's relations were living. They were put upstairs and the next morning they did not come down, so one of the ladies went to see. They were both dead, and the lady fell downstairs she was so disappointed. This ends the story.

No. 112.

Ojibwas and Mohawks (No. 11).

Told by Mrs. Marjory St. Germain.

Once a long time ago lived an Indian, his wife and child, in a camp in the woods. This man would go hunting for a living and would get all kinds of game. Once while out hunting he heard the Mohawks coming towards him, but he did not see them. He ran as fast as he could, though quietly, so the Mohawks would not hear him. He got home and told his wife to get ready and take the child away, that the Mohawks were coming, and that he would do his best, or else give his life to serve (save) his wife and child; also he had a little dog, and he told her to take the little dog with her. She got ready and they bade each other good-bye. She ran as fast as she could to the village, which was quite a long distance from their camp. After a while she heard the Mohawks following her; as the Mohawks heard the bushes crackling, so they followed. This Indian woman went on faster, and at last she got so tired carrying the baby that she said to one of the big trees, "Take care of my baby," and she told the little dog not to bark. She put the baby on the other side of the big tree, with the dog, losing no time. She went on faster and these Mohawks went around the other side of the big tree, not seeing the baby; also the dog did not bark. This Indian woman soon got to the village and told the Indians that the Mohawks were following her, and they got ready with their swords. Soon the Mohawks struck the village and the Indians went right after them and killed them all, though there were not so many Mohawks as the Indians in that village. The woman rested a little, she was so glad the Mohawks were killed. She went back where she left her child. It was still alive, and the dog. She said to the tree, "Thank you for taking care of my baby," but trees do not talk and gave her no answer. She went to their camp, the man was still alive, for the Mohawks did not go near the camp at all. They went back to the village and lived with the Indians in that village. This ends the story.

NEW ACCESSIONS

Figure No. 37675. Is a soapstone effigy pipe, elegantly finished. Found in the Township of Fenelon by Mr. Parrington and donated to Museum by Col. Laidlaw.

Fig. 37675—(Full size). Col. Laidlaw collection.

Figure No. 37676. Is a very finely formed stone pipe of reddish slate. The tally markings are very evenly done, gradually decreasing in size from the top downwards. Found by Mr. Nesbit in Fenelon Tp.

Fig. 37676—(Full size). Col. Laidlaw collection.

Fig. No. 37537—War Club (full size)—Eames Collection.

Figure No. 37537. This fine and symmetrical specimen of grooved artifact of quartz- evidently a war club—was found at Gananoque by Mr. Eames, on the street known as Princess Street, and about one hundred yards from the water line of the St. Lawrence River. Its appearance on the surface there is accounted for in the following manner: Some excavating took place for water extension to some cottages and the opening of a new cellar nearby, and this probably led to its discovery. It was first noticed casually by one who had no knowledge of its

former adaption, but this individual was sufficiently impressed by its regular form to mention his having seen it to Mr. Eames, who, from curiosity, went and examined it, with the result that he secured a very unique specimen. This is one of the objects found on what Mr. Eames believes to have been the original route of portage from "The Bay" to the upper fall of the Gananoque River. Canoes coming from the west, as from Kataraque (Kingston), would of necessity be compelled to take such a route in order to reach the great game country north of Anee la Morte.

Fig. No. 37528—Gorget (full size)—
Eames Collection.

Figure No. 37528. This artifact was found on the farm of Mr. Sol. Latimer, which borders the Gananoque River, and is referred to in "Some Sites of Indian Occupation," collected by Mr. Frank Eames. It resembles many gorgets found in western Ontario.

Figure No. 37534—gouge formed from limestone by the pecking process, and found on the east half of Lot 6, 1st Con., Tp. of Leeds. This spot was undoubtedly the scene of much native activity; this view is taken owing to the number of artifacts found there, and from the fact of its having been intersected by the early trail from east to west, which later became the bridle path of our pioneers. King Street, Gananoque, and King Street, Kingston, are connected by this route direct.

Figure No. 37664. Indian prisoners' cord of bark and quills, formerly the property of James J. Jarvis, Esq., of Niagara, Upper Canada, 1822, finally passing to Mr. Frank Eames, Tremont Park, Gananoque, Ont.

Fig. No. 37534—Gouge—(Full size)—Frank Eames Collection.

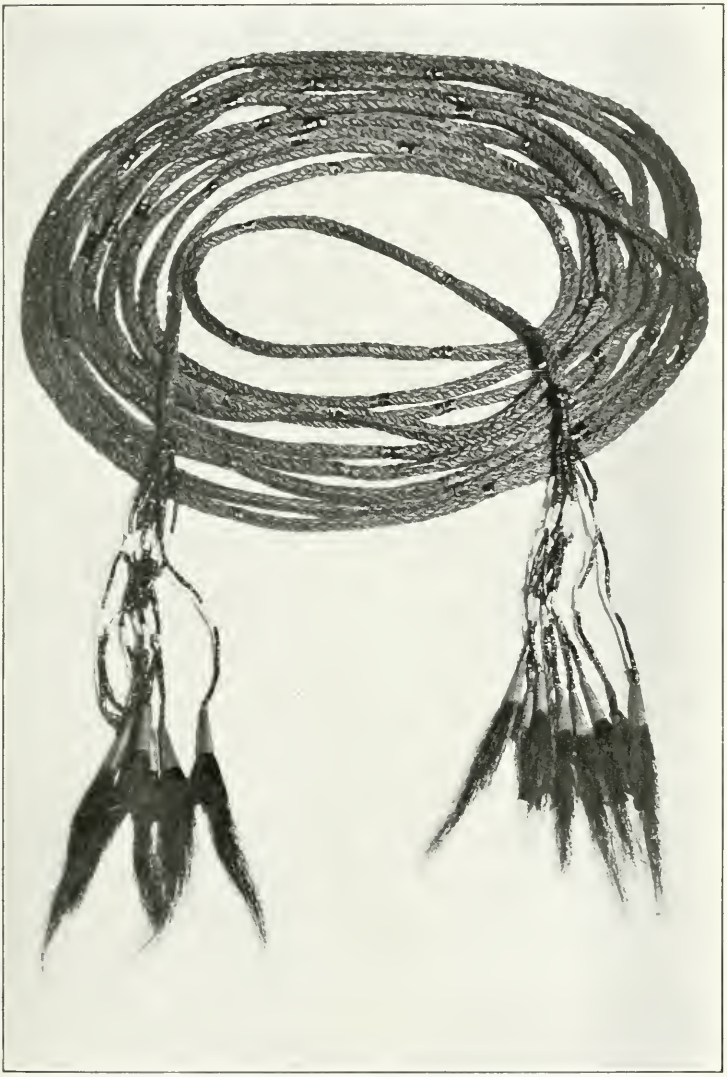


Fig. No. 37664—Prisoner's Cord—Eames Collection.

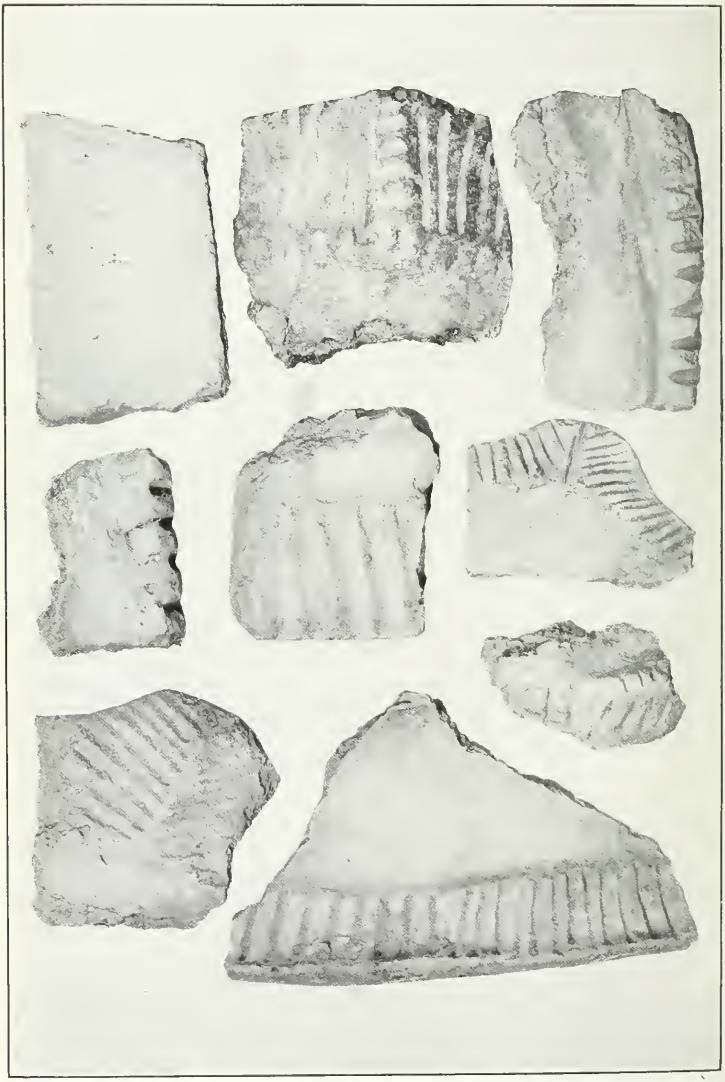
FRAGMENTS OF BELL.

From Chapel of Fort Ste. Marie II, Christian Island, found by John Copyeog in 1917, when digging his garden, near the ruins of the Fort. The bell was evidently carried from Ste. Marie on the Wye and may have been carried thence from La Conception at the time of the flight and dispersion in 1651. La Conception was the first wooden church built in Huronia in 1637. (Mr. Frank Moberly, of the Government Engineering Staff, Midland, Ont.)

Figure No. 37593. Carved knob of walking stick of slippery elm, showing both sides of head. It was brought from the upper reaches of the Ottawa River by a gentleman in the service of the Dominion Government a few years ago; it had been presented to him by a very old Indian, who stated that he had carved the faces, as shown, to represent his grandfather and grandmother; the face to the left being intended to represent the latter by the hood or shawl. The faces were at one time treated with a red pigment of some kind, traces of which remain.

Fig. No. 37593—Head of Walking Stick—Eames Collection.

Figures Nos. 37396-37404 illustrate some very fine specimens of Attiwandaron pottery. They were gathered by Mr. Gordon from village sites near Port Dover, on the north shore of Lake Erie.



Figs Nos. 37396-37404—Attiwandarow Pottery.

Figure No. 37328. This problematical stone was found on the village site on Hay Creek, about one mile from its outlet into Lake Erie. Mr. Gordon found it in a small bed of old charcoal and "burned stones" in a newly ploughed field, about 200 feet from Hay Creek. This "banner stone" is made from quartz, and is uniformly covered with a thick deposit of lime. The perforation through the centre is very uniform, if anything, slightly contracted towards the centre. Parker, State archæologist of New York, writes of those articles as follows: "Among the many interesting objects of stone, which the American Indian has left as a legacy to the archæologist, few appear more interesting than that which has been sometimes called the 'banner stone.' Objects of this character, with the gorget, the bird and boat-shaped stones, and a number of other forms, have been classed as 'ceremonial objects.'"

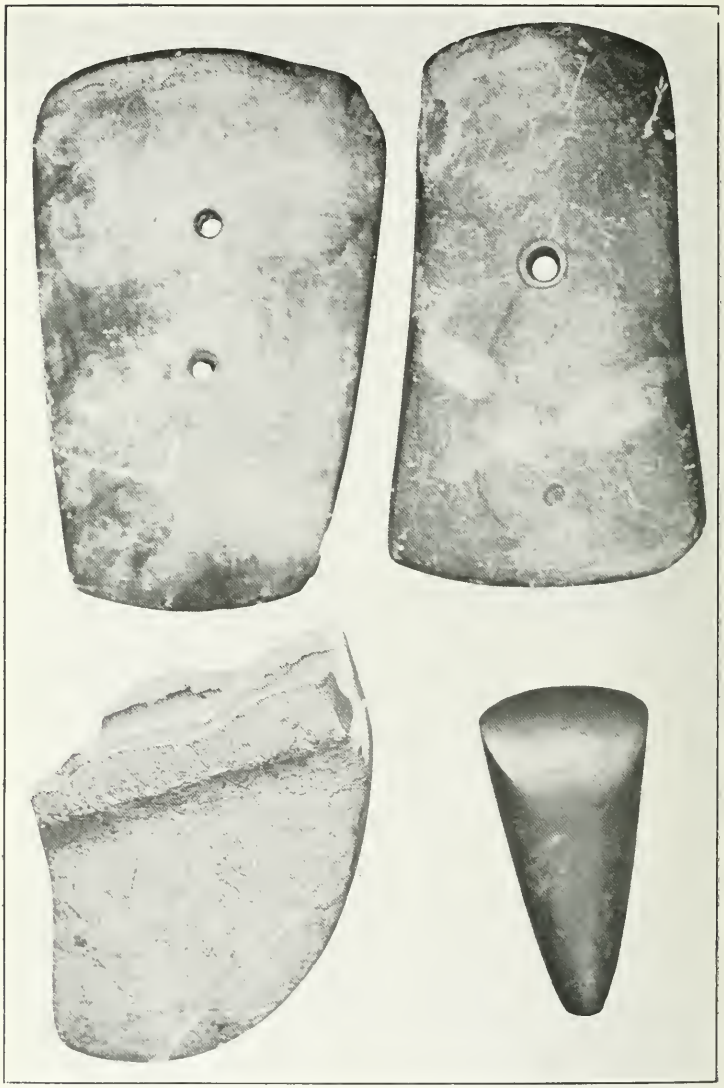
The "banner stone" is peculiar to North America. Its range is approximately the United States east of the Mississippi valley, and south-eastern Canada. The material of which these objects are made varies greatly according to locality. They are, however, nearly always made from soft and easily worked stone, such as steatite, talc, pagodite, slate, and marble. Some have been found, chiefly in southern New York and New England, made from blue-stone and granite pecked into shape. These are not perforated, but have grooved sides. Most of the heavier granites have an incomplete perforation."

Figure No. 37327 is a gorget from a village site near Port Ryerse along Hay Creek. It is strictly characteristic of many of the slate gorgets found all through the Attiwandaron district, being made of the usual striated slate, and with one perforation, around which is a ring, well brought out in the photo engravure.

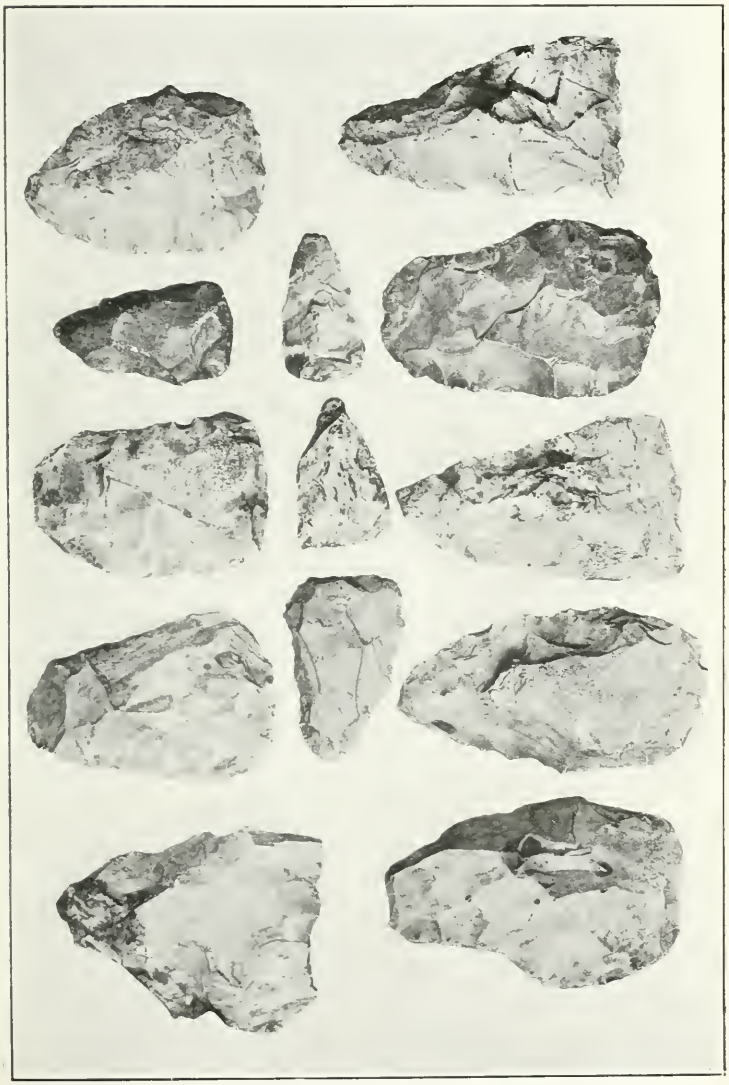
Figure No. 37326. This gorget was found on a farm near Port Ryerse, County of Norfolk. One side is uniformly smooth. The reverse side is slightly hollowed: this probably being a defect in the slate previous to manufacture.

Figure No. 37322—full size—Gordon collection. This small axe was found in a garden on St. George Street, Port Dover, about four hundred yards from the shore of Lake Erie. As regards outline, polish, and size, it is unique in the Museum collection. The slate is hard and most beautifully polished: both sides are exactly the same. It was evidently used for some ceremonial purpose and is one of those beautifully finished articles which one would expect to be the forerunners of the Iron Age.

Figures Nos. 37383-37395—Gordon Collection. All these paleoliths, or scrapers were found on Doan's Hollow village site, two miles north of Port Dover, on the left of Lynn River. While these flints are not by any means uniform in size, yet they are uniform in their several outlines, and must have been made for some specific purpose. Many more of a similar outline have been found in eastern Ontario.



Upper Fig. No. 37326—Gorget.
Lower Fig. No. 37328—Problematical Stone.
Upper Fig. No. 37327—Gorget.
Lower Fig. No. 37322—Stone Axe.
Gordon Collection (full size).



Figs. Nos. 37382-37395—Nearly full size—Gordon Collection.

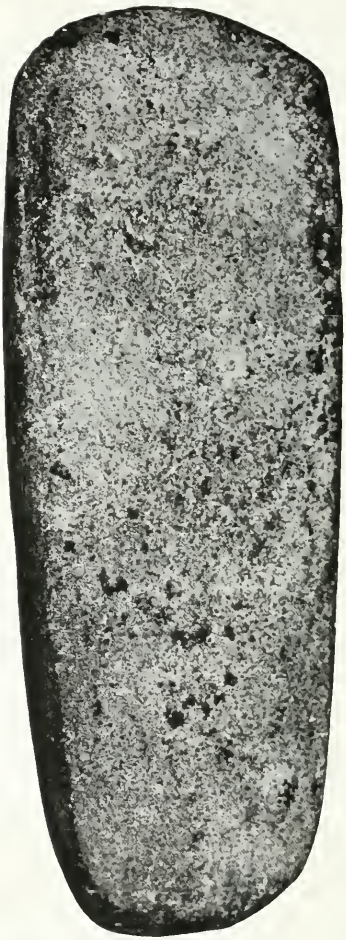


Fig. No. 37476—Axe (full size)—Gordon Collection.

Figure 37476. This axe was found on a farm near Port Ryerse. It is well made, being of finely polished granite. It weighs 1 lb. 6 oz., and is unbroken in any way.

Fig. No. 37615½—Rubbing Stone—Murphy Collection.

Figure No. 37615½ is a rough, undressed stone, both ends of which are polished smooth, and it looks as if it had been used for some rubbing process. Mr. Reynolds, of Manitowaning, has a similar stone in his collection, and, from the information supplied by him, the artifact was probably used by the Chippewas of Manitoulin Island Reserve for the purpose of polishing their canoes, particularly those small ones made for the purpose of being sold to the travelling public as souvenirs. The stone is a granite and fits the hand very well. The one in Mr. Reynolds' collection is somewhat smaller.

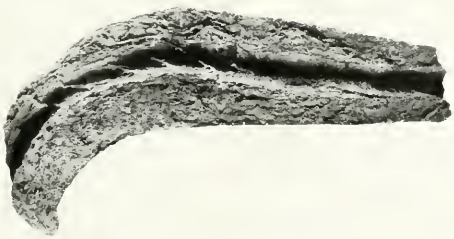


Fig. No. 37625—(Full size)—Murphy Collection.

The strands of the cord used when they were burning it are plainly visible.

Figure 37625. Pipe stem, broken—the hole in the pipe stem is well seen.

Figure No. 37624. A pipe stem found on the Murphy farm, Whitchurch. Though broken, yet the part we have is well and most regularly made. The polished clay between the marking is very smooth. The ornamentation of the stems of ceremonial pipes appears to have had great significance, for not only could one thereby determine to what tribe they belonged, but could even decide at a glance whether the bearer of it came on a friendly or hostile mission.

Figure No. 37619½ represents a portion of the head of a broken clay pipe found on the Murphy farm. The specimen is very characteristic of Huron methods of manufacture. The circular marking, with rows of holes, is most regularly done.

Figure No. 37607 represents the half of a clay effigy pipe found on the Dutton farm, near Fort McNichol. The outline is fairly good, though the sides of the face are not altogether symmetrical. The cavity of this pipe is somewhat larger than usual.

Figure No. 37608 is a large, well-made clay pipe. The broken side is illustrated showing the size of cavity to hold tobacco. The walls of the bowl of the pipe show the marking of whatever was used when it was burned. The surface has all the appearance of having been glazed. Evidently the Indians had some means of either glazing the surface, or else polishing it so as to give it the appearance of glazing.

Fig. No. 37610—Fish-hook (full size)—Dutton Collection.

Figure No. 37610 is a fine specimen of a fish-hook found on the (Hunter) site of St. Louis, Dutton's farm, Lot 2, Con. 6, Tp. of Tay. This hook was found in conjunction with an old French knife. It is probably as good as any of those manufactured to-day.

"Real fish-hooks of bronze are very frequent in the lake dwellings of Switzerland, exhibiting a great variety in form and size, and doubtless shaped in accordance with the character of the kind of fish to be caught with them. The smaller hooks are made of wire, either rounded, or more or less square in the section; the larger ones seem to be cast. Some of the hooks bear so close a resemblance to those used at the present time, that an expert in angling might have occasion to indulge in comments on their special applicability." (Rau, "Prehistoric Fishing.")

Fig. 37619½.
Full size—Murphy collection.

Fig. 37607.
Full size—Dutton collection.

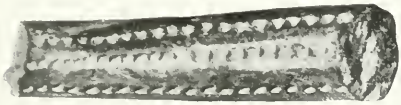


Fig. 37624.
Full size—Murphy collection.

Fig. 37608.
Full size—Dutton collection.

Fig. No. 37629—Quartz Implement from Lock Haven, Pa., U.S.A., the gift of Dr. T. B. Stewart.

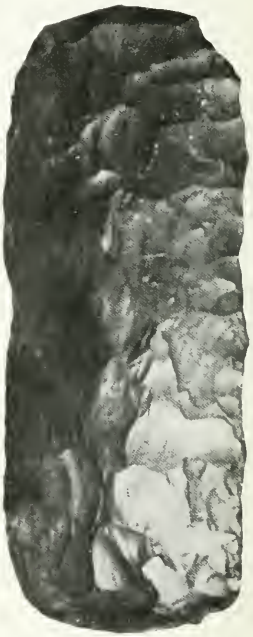


Fig. No. 37594½—Flint Implement.

Figure No. $37594\frac{1}{2}$ is a flint implement of uncertain utility, probably used for scraping hides. It was found in the County of Norfolk.

Figure 37595 illustrates a large iron tomahawk. It was found on Lot 18, Con. 5, Tiny Twp., and presented to the Museum by Dr. W. L. T. Addison, 431 Broadview Ave.

The form of this axe is somewhat unique, probably the prototype of our modern broad-axe. The markings are very nicely done, and it is most likely of French origin.

Fig. No. 37595—Tomahawk (full size).

ACCESSIONS TO MUSEUM

37313-37505—Procured from Mr. John Gordon, Port Dover, Ont.

37313-37317—Stone axes or adzes.
37318—Gouge.
37319-37322—Stone axes or adzes.
37323-37324—Net sinkers.
37325—Hammer stone.
37326-37327—Gorgets.
37328—Part of banner stone.
37329—Fragment of stone axe.
37330-37332—Fragments of gorgets.
37333-37339—Fragments of clay pipes.
37340-37382—Chert rejects and unfinished.
37383-37395—Chert specimens, scrapers, etc.
37396-37404—Fragments of pottery.
37405-37475—Chert, arrow-heads, spear-heads, rejects, etc.
37476—Stone adze.
37477-37481—Large arrow or spear-heads.
37482-37501—Chert specimens, arrow-heads, scrapers, etc.
37502—One hundred and twenty-eight fragments of pottery.
37503—Gun flint.
37504—Arrow-head, Wooley's Point.
37505—Arrow-head, railroad cut near Lynn, Mass., on the B.O. and M.R., seven miles from Boston.

37506-37594½—Procured from Mr. Frank Eames, Gananoque, Ont.
Found in South Leeds Tp., Leeds County.

37506-37524—Stone axes.
37525-37527—Fragments of stone axes.
37528-37530—Gorgets.
37531—Grooved axe.
37532-37536—Gouges.
37537-37538—Large grooved hammer stones.
37539—Piece of clay pot.
37540-37541—Stone implements.
37542—Large round stone.
37543-37545—Small round stones.
37546—Iron tomahawk.
37547—Part of iron tomahawk.
37548—Stem of clay pipe.
37549—Fragment of pottery.
37550—Horn powder flask.
37551—Twenty-four chippings.
37552—Fifty-three chert chippings.
37553—Twenty-eight fragments of pottery.
37554-37556—Spear-heads, Lot 6, Con. 1, Leeds Co.
37557-37558—Large leaf-shaped arrow or spear-heads.
37559-37576—Arrow-heads, Lot 6, Con. 1, Leeds Co.
37577-37578—Arrow-heads.
37579—Spear-head, Oak St., Gananoque, Ont.
37580—Part of stone axe.
37581—Slate spear-head.

37582—Part of gorget.
37583—Drill, Lot 6, Con. 1, Leeds Co.
37584—Clay pipe stem.
37585-37586—Pieces of human skull.
37587-37588—Parts of human jaw bone.
37589-37590—Pipe stems, Northwest Territories.
37591—Pipe stem, bound with quills.
37592—War-club (wood), Saskatchewan.
37593—Cane (carved heads on handle), Upper Ottawa River.
37594—Piece of limestone, Leeds Tp.
37594½—Chert implement, Leeds Tp.

37595-37596—Gift of Dr. W. L. T. Addison, 431 Broadview Ave., Toronto.

37595—Large iron tomahawk, Lot 18, Con. 15, Tiny Tp.
37596—Stone axe, Lot 18, Con. 15, Tiny Tp.

37597-37610—Gift of Mr. Edward Dutton, Midland, Ont.

37597-37600—Stems of clay pipes.
37601—Stem of stone pipe.
37602-37603—Fragments of clay pipe bowls.
37604—Piece of copper.
37605-37606—Iron tomahawks.
37607—Clay pipe—part of bowl.
37608—Part of large clay pipe.
37609—Chert specimen.
37610—Fish-hook.

37611-37626—Gift of Mr. P. Murphy, Whitchurch, Ont.

37611—Seventy fragments of pottery.
37612—Fragment of bone awl.
37613—Bone head.
37614-37615—Stone axes.
37615½—Rubbing stone.
37616-37618—Parts of stone axes.
37619—Rubbing stone.
37619½—Fragment of clay pipe.
37620—Flat stone—part of tablet.
37621—Stone implement.
37622-37623—Round stones.
37624 37625—Stems of clay pipes.
37626—Human bones.

37627-37628—Gift of Mr. Geo. Crowe.

37627—Turtle rattle—Six Nation Reserve.
37628—Dance mask, Six Nation Reserve.

37629-37635—Gift of Mr. J. B. Stewart, Lock Haven, Pa., U.S.A.

37629—Flint implement, Johnson Co., Ill., U.S.A.
37630-37632—Sinkers, Clinton Co., Pa., U.S.A.
37633—Hammer stone, Riley Co., Kansas, U.S.A.
37634-37635—Shell implements, Hillsboro Co., Florida.

37636-37664—Procured from Mr. Frank Eames, Gananoque, Ont.

37636—Arrow-head, found by Chas. Clark, of Gananoque, on the site of the Custer massacre.
37637—Carved head on a poplar tree route carved by a Caughnawaga Indian.
37638—Pipe bowl, Shamcatles Lake Dishrict, N.Y. State.
37639-37642—Sinkers, Shamcatles Lake District, N.Y. State.
37643—Chert implement, Ohio State, U.S.A.
37644-37646—Arrow-heads, Onondago Co., N.Y., U.S.A.
37647-37651—Arrow-heads, Ohio State, U.S.A.
37652—Bone awl, from a grave, Cayuga Co., N.Y., U.S.A.
37653-37655—Teeth, from a grave, Cayuga Co., N.Y., U.S.A.
37656—Bone head, unfinished, from a grave, Cayuga Co., N.Y., U.S.A.
37657—37658—Pieces of copper, from a grave, Cayuga Co., N.Y., U.S.A.
37659—Uncertain.
37660-37662—Small arrow-heads, from a grave, Cayuga Co., N.Y., U.S.A.
37663—String of beads, from a grave, Cayuga Co., N.Y., U.S.A.
37664—Prisoners' cord.

37665-37667—Gift of Lieut. B. J. Miller, Toronto, Ont.

37665-37666—Executioner's outfit, West Africa.
37667—Large knife, West Africa.

37668-37673—Procured from Mr. Geo. W. Beall, Lindsay, Ont.

37668—Stone axe or adze.
37669-37672—Arrow-heads.
37673—Small cannon ball.

37674-37684—Gift of Col. Geo. E. Laidlaw, Victoria Road, Ont.

37674—Arrow-head.
37676—Stone pipe (soapstone), found by G. Parrington, Esq., on N. ½ Lot 17, Con. 2, Fenelon Tp., February, 1918.
37676—Stone pipe (red slate), found by P. Nesbit, Esq., on E. ½ Lot 1, Con. 2, Fenelon Tp.
37677—Fragment of stone pipe, found by Robt. Lytle, Esq., Victoria Road, on the W. ½ Lots 5 and 6, Con. 2, Bexley Tp.
37678—Fragment of stone axe, found by G. Parrington, Esq., on Site 28, Lot 26, Con. 4, Fenelon Tp.
37679—Fragment of stone axe, found by Percy Oldfield, Esq., on Lot 2, N.W.B. Bexley Tp.
37680—Fragment of stone axe, found by J. Bartley, Esq., on Lot 36, N.W.B. Bexley Tp.
37681—Fragment of stone axe, found by Percy Lytle, Esq., in school-yard, Block E. Bexley Tp.
37682—Chert chippings, found by Col. Geo. E. Laidlaw, on Block B, Victoria Road.
37683—Chippings from work shop, found by Col. Geo. E. Laidlaw, on Lot 5, S.P.R., Bexley Tp.
37684—Stone implement, found by P. Nesbit, Esq., on Lot 10, Con. 3, Eldon Tp.

BIOLOGICAL SECTION

ACCESSIONS, 1918

During the past year the specimens presented to the Museum are as follows:

Male Virginia Deer, Mr. Cockram.
Six Semotilus atromaculatus, Mr. A. Kay.
Peromyscus m bairdii, Mr. D. Soper.
Eggs of Musk Turtle, Mr. Hoyes Lloyd.
Skull of Beaver, Mr. W. Carrell.
Mandible of Swordfish, Mr. W. Carrell.
Great Horned Owl, Mr. G. Jaffray.
Snowy Owl, Mr. G. Jaffray.
Pilcated Woodpecker, Mr. G. Jaffray.
Ruffled Grouse, Mr. G. Jaffray.
Amblystoma jeffersonianum, Mr. Louis Brown.
Amblystoma punctatum, Mr. Louis Brown.
Storeria dekayi, Dr. A. Cosens.
Thamnophis sauritus, Mr. Hairsine.
Bascanion constrictor, Mr. Hairsine.
Coluber obsoletus, Mr. Hairsine.
Natrix sipedon, Dr. A. Cosens.
Liopeltis vernalis, Dr. A. Cosens.
Lampropeltis doliatus, Mr. F. James.
Heterodon platirhinos, Mr. F. James.
Aspidonectes spinifer, Mr. Wm. Bateman.
Eggs of Chelydra serpentina, Mr. Wm. Bateman.
Eggs of Chrysemys picta, Mr. Wm. Bateman.
Six Notropis umbratilis, Mr. A. A. Wood.
Three Brook Lampreys, Mr. Fisher.
Six Notropis cornutus, Mr. Fisher.
Two Pimephales notatus, Mr. Fisher.
Yellow Pickerel, Dept. of Fisheries.
Blue Pickerel, Dept. of Fisheries.
Lake Herring, Mr. Lane.
Lake Trout, Judge Vallin.
Lepomis pallidus, Mr. Wm. Bateman.
Yellow Perch.
Four Percina caprodes, Dr. A. Cosens.
Kangaroo, Mr. C. H. Shaw.
Quadrula undulata, Dr. A. Cosens.
Nest of Red-eyed Vireo, Mr. Dance.
Snapping Turtle, Mr. O. A. Castrucci.
Two Chiton, Mr. Earle Roberts.
Two Paphia tenerima, Mr. Earle Roberts.
Two Schizognathus nuttallii, Mr. Earle Roberts.
Eight Thais lamellosa, Mr. Earle, Roberts.
Two Macoma nasuta, Mr. Earle Roberts.
Two Cardium corbis, Mr. Earle Roberts.
One Polynices lewisii, Mr. Earle Roberts.
Two Thais lima, Mr. Earle Roberts.
Two Solen sicarius, Mr. Earle Roberts.
Two Modiolus modiolus, Mr. Earle Roberts.
Pomoxis spariodes, Mr. Wm. Bateman.
Garfish (Juv), Mr. Wm. Bateman.
Ameiurus lacustris, Mr. Wm. Bateman.
Two Amblopliles rupestris, Mr. E. Sadler.
Two Lake Herring, Mr. C. Clark.
Loon, Dr. R. B. Orr.
Two Necturus maculosus, Mr. Louis Brown.
Two Rana catesbiana, Mr. Louis Brown.
Collection of birds' eggs, Mr. Louis Brown.
Three Brook Lampreys, Mr. A. A. Wood.
Four Migrant shrikes (Juv), Mr. Dance.
One Migrant shrike (adult), Mr. Dance.
Milk Snake, Mr. Wheeler.
Rose-breasted Grosbeak, Mr. Jacques.
Nighthawk (Juv), Mr. Jacques.
Yellow-throated Vireo, Mr. Hoyes Lloyd.
Two Hoary Bats (embryo), Mr. A. A. Wood.
Two Pickerings Hyla, Mr. Jacobs.
Chorophilus nigritus, Mr. Jacobs.
Large-mouth Black Bass, Mr. J. H. Cranston.
Monohammus tittilator, Mrs. A. G. White.
Snow Goose, Mr. W. Venner.
American Eel, Mr. O. A. Castrucci.
Rainbow Trout, Mr. L. Strothers.
Garfish.
Sphinx larva (parasitized), Mr. W. Carrell.
Five-lined skink, Mr. Jacobs.
Anthrenus scrophulariæ, Dr. C. A. Risk.
Two Hadropterus aspro, Mr. A. A. Wood.
Two Green sided Darter, Mr. A. A. Wood.
Four Plethodon cinereus, Mr. A. A. Wood.
Graptemys geographicus, Mr. Barnes.
Four Silver Fox Puppies, Dr. Campbell.
Long-billed Curlew, Mrs. Bathgate.
Case of shore-birds, Mrs. Bathgate.
Passenger Pigeon, Mr. I. Telfer.
Two American Mergansers, Mrs. J. C. Lander.
King Rail, Mr. W. Carrell.
White-winged Scoter, Mr. C. Clark.
Two Evening Grosbeaks, Mr. Morris.
Yellow-headed Blackbirds, Mr. Morris.
Two Red-winged Blackbirds, Mr. Morris.
Collection of Insects, Mr. H. Lloyd.

UNIVERSITY OF TORONTO

REPORT OF THE

BOARD OF GOVERNORS

FOR THE

YEAR ENDING 30th JUNE

1918

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO

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1918

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UNIVERSITY OF TORONTO

REPORT OF THE

BOARD OF GOVERNORS

FOR THE YEAR ENDING 30th JUNE 1918

To His Honour the Lieutenant-Governor in Council:—

The Governors of the University of Toronto have the honour to submit their twelfth annual report, including therein the President's report upon the academic work of the University and its Colleges during the Session 1917-18, together with the reports of various departments. They also append the usual statement showing in detail the receipts and expenditures for the fiscal year ended 30th June, 1918, which has been duly audited in accordance with the provisions of the University Act.

During the year negotiations were completed with the holder of one of the Park leaseholds (three lots) whereby, in consideration of a cancellation of the ground rent and the assumption by the Board of the City taxes, only a life interest is retained by the lessee, an elderly lady, at whose death the whole property, including the valuable house thereon, reverts to the Board, and becomes immediately available for any University purpose.

During the year, also, the Board expended out of income some $8,500 upon the alteration and furnishing of the Annex to the Faculty of Education buildings at the corner of Bloor Street and Spadina Avenue. The placing of this building in commission has provided some additional class rooms and also accommodation in the way of rest rooms, etc., for the women students of that faculty.

The gross revenue for the year was $916,890. The deduction of interest written to scholarship and other trust funds, $7,423, gave a net revenue of $909,467, which is an increase of slightly more than $50,000 over the preceding year. The main items of income, however, were substantially the same, the increases being principally due to the use of the residences and dining hall by the military authorities and to the larger shares of heating and lighting expenses payable by the federated colleges; the latter, of course, being counter-balanced by greatly increased charges on the other side. The item of fees remained fairly constant, reaching $185,573, as against $188,425 in 1916-17. The low-water mark in this respect has now, it is hoped, been reached.

The expenditure under the appropriations for salaries and maintenance was $1,076,225. This represents an excess over the expenditure of the previous year of $129,778. The principal factors contributing to this were the greatly increased cost of operation of the central heating plant, which was some $48,000 higher, due to the enormous rise in the price of coal, and the special grant of $25,000 which was made towards the maintenance of the Toronto General Hospital. An expenditure of

$11,995 upon special research is also to be noted—an appropriation of $15,000 for this purpose was provided by the Board for the first time in the estimates of the year under review. The report of the President gives particulars of the work done under this. There was, further, an increase of some $27,500 in the expenditure upon the dining hall, more than offset by the receipts referred to. The expenditure upon the Education building annex has already been mentioned. The other items going to make up the total increase are of ordinary character and unimportant.

The deficit upon the year's operations was $166,758, which has been charged to the special grant of $200,000 made by the Legislative Assembly. The difference, together with $17,802 on hand from the previous year, renders $51,044 available towards augmenting the deficiency in revenue for the year 1918-19.

All of which is respectfully submitted.

B. E. Walker,

Chairman.

Toronto, 30th November, 1918.

PRESIDENT'S REPORT

1917-1918

To the Governors of the University of Toronto:—

GENTLEMEN,—I beg to submit the following report on the academic work of the University and University College during the twelve months ended June 30th, 1918.

The total staff of the University and University College numbered 413, of whom 58 were professors, 43 associate-professors, 24 assistant-professors, 66 lecturers and associates (in medicine), and 222 demonstrators, fellows and instructors with sessional appointments. They are distributed as follows:—

—	Professors.	Associate Professors.	Assistant Professors.	Associates.	Lecturers.	Other Sessional Appointments.
University (Faculty of Arts)	22	10	10	.....	19	54
University College	10	4	3	.....	10 (1 in Univ.)	4
Faculty of Medicine	15	22	.....	17	5	118
Faculty of Applied Science	8	4	8	.....	13	13
Faculty of Household Science	.....	2	.....	.....	2	4
Faculty of Forestry	1	.....	3 (2 in Univ.)	.....	.....	.....
				Chief Instructors.	Assistant Instructors.	
Faculty of Education	2	1	2	4	20	5

The above figures include persons absent on military service whose appointments are continued on whole or part salary, or *pro formâ* without salary.

In Victoria College there were:

Professors (one in University)	11
Associate Professors	5
Lecturers	4

In Trinity College there were:

Professors	8
Lecturers	10*
Reader	1

(*2 on leave of absence.)

In St. Michael's College there were:

Professors	9
Lecturers	5

Reference was made in my last report to the death of Professor Fletcher, but I would call attention to Principal Hutton's tribute to his former colleague in his appended report.

I have to record with regret the death of Dr. G. R. McDonagh who served in the Faculty of Medicine in this University for many years and after a protracted period of ill-health passed away in August.

I regret also to report the sudden death of Professor Ledoux who came to the University as the guest of the staff three years ago. Professor Ledoux had suffered from ill-health ever since his terrible experience in the opening year of the war in Belgium. During the years that he was in Toronto he made many friends by his gentle disposition, and the deep sympathy of the University goes out towards Madame Ledoux.

Dr. G. Sterling Ryerson asked to be allowed to resign after fifteen years as Professor of Ophthalmology and Otology.

Dr. A. F. B. Clark resigned his position in the Department of English to accept an assistant-professorship in Washington University, Seattle.

Leave of absence for the year was continued to Professor Toews on account of ill-health and to Professor J. H. White, of the Faculty of Forestry.

The University was very fortunate in being able to fill the vacancy left in the Department of Italian and Spanish by the death of Professor Fraser by the appointment of Dr. J. E. Shaw to a professorship in these languages. Professor Shaw is a graduate of and held a chair in the Romance Department of Johns Hopkins University and has brought a fine record of scholarship and teaching power to the service of this University.

In Physiology the situation would have been serious had it not been for the kindness of Dr. Winifred Cullis, of the London School of Medicine for Women, who at our request undertook the direction of the work in Physiology from January to the beginning of May, and filled the position brilliantly. Not only did she win the admiration of her classes and the friendship of the staff of the University, but by her lectures in many places in Ontario she was most effective in arousing a sense of what the women of Britain have accomplished in the war. By coming to the University in our time of need when travelling by sea from Britain was so perilous, Dr. Cullis has laid the University under a deep obligation.

It is a great satisfaction to be able to report that during the session appointments were made to the Chairs of Physiology and Biochemistry, the former that of Dr. J. J. R. Macleod and the latter that of Dr. T. Brailsford Robertson. Dr. Macleod, who is a graduate of Aberdeen, studied for some years in London and on the continent of Europe, held the Chair of Physiology in the Western Reserve University at Cleveland, Ohio, for fifteen years, and by his teaching power and scientific attainments did much to increase the prestige of that Medical School. Dr. Robertson, who was educated at Adelaide, Australia, was for thirteen years in the University of California, and as a teacher and an investigator was one of the most distinguished of the younger men on the staff.

The following members of the staff, in addition to most of those mentioned in previous reports, were granted leave of absence for military or national service during the year: J. Watson Bain, E. A. Bott, J. G. Fitzgerald, W. Goldie, A. Lipari, J. C. McLennan, W. N. Millar, C. L. Starr, W. M. Treadgold.

Three of the staff were taken by draft into the American army—Professor Millar from the Faculty of Forestry; Mr. Lipari from the Department of Italian and Spanish; and Dr. Baumann from that of Biochemistry. The removal of

Dr. Baumann occasioned us great difficulty which was only met by the generous aid of Professor Andrew Hunter and Professor Clara Benson, who themselves undertook much of the work of the Department of Biochemistry.

In addition the following promotions and new appointments were made during the year:

In the Faculty of Arts, S. Beatty, Ph.D., was promoted from a lectureship to an assistant-professorship in Mathematics; S. A. Cudmore, B.A., Oxon., was promoted from a lectureship to an assistant-professorship in Political Economy; C. T. Currelly, M.A., was appointed professor of the History of Industrial Art; E. A. Dale, M.A., Oxon., was promoted from a lectureship to an assistant-professorship in Latin; W. T. Jackman, M.A., was promoted from a lectureship to an assistant-professorship in Political Economy; Professor W. R. Lang, D.Sc., Glasgow, was appointed Director of Military Instruction; A. Lipari, M.A., Columbia, was appointed Lecturer in Italian and Spanish; H. S. McKellar, B.A., was appointed Lecturer in French; E. M. Walker, B.A., M.B., was promoted from an assistant-professorship to an associate-professorship in Biology; J. H. White, M.A., B.Sc.F., was promoted from a lectureship to an assistant-professorship in Botany and Forestry; and W. D. Woodhead, B.A., Oxon., M.A., Alberta, was appointed lecturer in Latin.

In the Faculty of Medicine, H. K. Detweiler, M.D., was promoted from an instructorship to a lectureship in Pathology.

In the Faculty of Applied Science, M. C. Boswell, M.A., Ph.D., was promoted from an assistant-professorship to an associate-professorship in Organic Chemistry; L. J. Rogers, B.A.Sc., was appointed lecturer in Analytical Chemistry.

In the Faculty of Household Science, Miss Z. A. Herrick, B.S., Columbia, was appointed lecturer in Household Science.

In the Faculty of Education, H. J. Crawford, B.A., was promoted from an associate-professorship to a professorship of Methods in Classics; G. A. Cornish, B.A., was promoted from a lectureship to an assistant-professorship of Methods in Science; J. T. Crawford, B.A., was promoted from a lectureship to an assistant-professorship of Methods in Mathematics; J. G. Adams, B.A., H. B. Kilgour, B.A., W. J. Lougheed, M.A., W. H. Williams, M.A., were appointed Instructors in the University Schools.

The following member of the staff delivered a course of lectures at Trinity College:

M. A. Mackenzie, M.A., Professor of Mathematics.

The total number of students registered in the University in 1917-1918 was 2,799, or apart from those registered in the Summer Session and Occasionals in Social Service, 2,536, distributed as follows:—

Faculty of Arts:—	Men.	Women.	Total.
University of Toronto	54	10	64
University College	271	379	650
Victoria College	101	182	283
Trinity College	36	45	81
St. Michael's College	110	56	166
Graduate Courses	68	25	93
Faculty of Medicine	605	51	656
Faculty of Applied Science	166	2	168
Faculty of Education	126	232	358

	Men.	Women.	Total.
Faculty of Forestry	10	....	10
Department of Social Service	1	241	242
Summer Session and Teachers' Courses	19	27	46
Registered twice	13	5	18
	1,554	1,245	2,799

The figures may be further analyzed as follows:—

FACULTY OF ARTS.

University of Toronto.

Candidates for Ph.D.	27	
Candidates for M.A.	57	
Graduate Students	9	
Occasional Arts Students	15	
Veterinary Students	49	
		157

University College.

First Year Undergraduates	229	
Second Year Undergraduates	132	
Third Year Undergraduates	131	
Fourth Year Undergraduates	116	
Occasional Students	42	
		650

Victoria College.

First Year Undergraduates	75	
Second Year Undergraduates	74	
Third Year Undergraduates	63	
Fourth Year Undergraduates	50	
Occasional Students	21	
		283

Trinity College.

First Year Undergraduates	28	
Second Year Undergraduates	14	
Third Year Undergraduates	22	
Fourth Year Undergraduates	13	
Occasional Students	4	
		81

St. Michael's College.

First Year Undergraduates	79	
Second Year Undergraduates	38	
Third Year Undergraduates	29	
Fourth Year Undergraduates	16	
Occasional Students	4	
		166

Faculty of Medicine.

Candidates for M.D.	4	
First Year Undergraduates	171	
Second Year Undergraduates	102	
Third Year Undergraduates	90	
Fourth Year Undergraduates	64	
Fifth Year Undergraduates	94	
Dental Students	131	
		656

Faculty of Applied Science.

Candidates for Professional Degrees	2	
First Year Undergraduates	72	
Second Year Undergraduates	39	
Third Year Undergraduates	29	
Fourth Year Undergraduates	24	
Students of other Faculties	2	
		168

Faculty of Education.

Students registered	358	
		358

Faculty of Forestry.

First Year Undergraduates	5	
Second Year Undergraduates	1	
Fourth Year Undergraduates	4	
		10

Department of Social Service.

Students registered	242	
		242

Summer Session.

Students registered	46	
		46

The numbers examined in the different departments of the University, including those granted standing for Military Service, were as follows:—

Arts:		
Ph.D.	3	
M.A.	28	
Fourth Year	199	
Third Year	263	
Second Year	314	
First Year	357	
Senior Matriculation	89	
		1,253

Medicine:		
M.D.	3	
Fifth Year	94	
Fourth Year	55	
Third Year	50	
Second Year	85	
First Year	129	
		416
Applied Science:		
Professional Degrees	2	
Fourth Year	25	
Third Year	24	
Second Year	31	
First Year	61	
		143

Education	277
Forestry	9
Law	6
Degrees in Pedagogy	26
Pharmacy	20
Music	6
Dentistry	275
Agriculture	38
Local Examinations in Music	515
Veterinary Science	9
Social Service	232

The degrees conferred were:	
LL.D. (Honorary)	2
Ph.D.	1
M.A.	27
LL.B.	2
M.D.	3
D.P.H.	1
M.B.	76
B.A.	201
C.E.	1
M.E.	1
B.A.Sc.	35
D.Paed.	2
D.D.S.	67
B.S.A.	33
B.Sc.F.	2
F.E.	1
Phm.B.	18
B.V.S.	11
D.V.S.	1
Mus. Bac.	1
	486

In comparison with the previous academic year the attendance at the University was smaller in every Faculty except Medicine, to which a number of students were returned from overseas by the military authorities to complete their courses. The regulations of the Militia Department in Canada with regard to undergraduates in Medicine accounted also for the increased attendance during the year that has just closed. The attendance has evidently reached its lowest ebb and from this time forward we may expect a rapid increase. In fact, the conclusion of peace will render urgent many problems with regard to accommodation.

The number of women who have entered upon the study of medicine has grown so rapidly and the difficulty of securing good rooms or boarding-houses for them has been so serious that the need has been created of providing a new residence for them as soon as possible.

Though we did not suffer as in the previous year from shortage of coal the buildings were closed by order of the Fuel Controller on February 9th and 11th.

As in former years since the beginning of the war the session was shortened in order that students might undertake agricultural work or other form of national service. Commencement was held on May 18.

For the first time every male student proceeding to a degree was required to undergo a medical examination by the Physical Director, and thereafter if physically fit to take regular military training, or, if exempted, physical exercise suited to his case. The new regulation was carried through with very little difficulty and I am glad to say that the report of the examiner was highly favourable. He used the categories set for army recruits, and reported that of the 960 students whom he examined only 154 of those over twenty years of age could be placed in Class A, and of these 51 belonged to the third year in medicine and might be exempted. As this examination was made early in October it is altogether probable that of the one hundred and three men of this class nearly all who would be accepted had taken military service before the session was far advanced. Though the students of the second, third, fourth and fifth years in Medicine were compelled by the Military Service Act to take military training, it was given for the most part by instructors who were appointed by the University and who conducted this work for the other Faculties.

As was to be expected enlistments of University graduates and undergraduates have continued rapidly so that at the end of June, 1918, there were 4,984 on active service, and at the time of writing this number has been increased to 5,308, made up as follows:—

	Officers.	Ranks.	Total.
Present Staff	101	2	103
Former Staff	47	15	62
Graduates	2,374	453	2,827
Former Students	227	75	302
Undergraduates	1,025	945	1,970
Faculty of Education	58	101	159
			5,423
Less duplicates			115
			5,308

Our records also show that of these there were.

Killed in action or died on service	517
Wounded	816
Missing, prisoners and interned	47

The following graduates, past students and undergraduates have fallen in the course of the year:

Coleman Boys Adams, Joseph Reginald Adams, William Harvey Aggett, Frederick Stanley Albright, Samuel Hall Allen, John Oliver Allison, Frederick John Anderson, Wilfred Bissell Andrew, Wilbur F. Annis, Fred Everest Banbury, Percy Louis Barber, Joseph Claude Anthony Barker, David Benjamin Bentley, George Herbert Berry, Richard Henry Bonnycastle, Richard Austin Brown, William Gordon Brown, Fraser Macpherson Bryans, Rosswell Mossir Burgess, John James Campbell, William Mackay Carlyle, James Ronald Chapman, Paul Brooks Clarke, Carleton Main Clement, William Henry Clipperton, Gordon Allan Cockburn, Walter Gordon Coutts, Ernest Herbert Cox, James Nelson Cunningham, Albert Edward Cuzner, Lawrence Lavell Davidson, Lester Jerome Deacon, Robert John Gunn Dow, Hubert Samuel Dowson, Jaffray Eaton, Douglas Quirk Ellis, Franklin James Foster, Russell Thomas Gardner, Gordon Smith Mellis Gauld, William Miller Geggie, Stewart Marcon Goodeve, John Alexander Gordon, James Burness Grange, John Vincent Guilfoyle, Orville Dwight Haist, Clifford Otto R. Hames, Howard Kilbourne Harris, John Hately, Roy Richard Hawkey, Thomas Herman Heintzman, James Henderson, Lewis Brock Henry, Charles Russell Hillis, Ernest Dryden Hosken, John Turner Howard, David Edwin Howes, Richard Alfred Ireland, Thomas Craik Irving, Franklin Palmer Jackes, Ralph Himsworth Jarvis, Hugh Reid Kay, Henry Alexander Taylor Kennedy, John Henry Knox, Henry Drummond Lang, Arthur Joseph Latornell, Robert William McBrady, Thomas Allan McComb, John McCrae, Lorne Hastings McCurdy, John William McDowell, Aubrey Thomas McFadden, Peter Lyddel McGavin, Allan F. Maclean, Donald Gordon MacLean, Donald Murdoch McLennan, George Gordon MacLennan, John Dewar McMurrich, William Gordon MacNevin, Charles Kenneth Macpherson, Ian Cameron Mallough, John Carr Newcombe, John Ferguson Palling, George Lewis Roberts Parrish, Murray Hume Paterson, Edgar William Patten, Charles Forest Patterson, Norman Howard Pawley, Howard Vincent Pickering, J. Potvin, Henry Charles Quail, Paul Hartly Raney, John Henry Ratz, David Alexander Robinson, Stanley Wallace Rosevear, Evan Ryrie, Edwin Francis Sanders, Douglas Gordon Scott, James Garnet Scott, Samuel Simpson Sharpe, Richard Langford Smith, Robert Scott Smith, Lorne Snyder, Kenneth Ian Somerville, Russell Wright Soper, Thomas Vincent Sparling, William Alexander Denison Sutterby, Aysceau Francis Robert William Swinnerton, Robert Edward Taylor, Henry Richard Thomson, John Archibald Treblicock, John William Tribble, George Elmer Wain, Hugh Jarman Watson, George Roy Weber, Thomas Baird Welch, Randolf Hadden Arnold West, Charles Herbert Wheelock, Harold Reid Wilkinson, Mark Webber Williams, William Taylor Willison, Jardine Turner Wilson, William Taylor Wilson, Frank Abbott Wood, William Jonathan Wright.

As in former years so in the past session the University was a centre of war activity. The Royal Air Force occupied most of the old School of Practical Science Building, portions of two other buildings for a part of the year, the examination hall in the rear of Convocation Hall, the three men's residences, the Dining Hall, and through the kindness of the Massey Estate a large portion of Hart House. They also used the back and front lawns for drilling. Space was also granted for the work of the Invalided Soldiers' Commission in the Chemistry and Mining Building and in the temporary gymnasium in which classes were conducted for wounded soldiers under the supervision of a Committee of the Faculty of Applied Science. The Hospital Supply Association continued their

Red Cross Work in the Library and Physics Buildings, and a room was used by the Secours National in the Biological Building.

Reference may be made to the work done at Hart House under the Military Hospitals' Commission by Dr. Bott of the University and others associated with him in the functional re-education of returned soldiers and in training persons to undertake this work throughout the Dominion. Private funds were secured to supplement the equipment provided by the Government, and in addition the University made a contribution for research on the Physiological and Psychological sides of the work. At the request of the Consultant Board of Military Hospitals Dr. McMurrich gave a course of lectures in the School of Massage and a further course to returned officers who are qualifying to take charge of Orthopaedic work. To the same class in Electro-therapy, Professor Burton gave twelve lecture demonstrations in Electricity and Magnetism.

At the request of the Admiralty the Board of Governors granted to Professor J. C. McLennan, F.R.S., O.B.E., leave of absence for the academic year that he might continue his researches and organising efforts particularly as regards mines and the submarine. Professors Burton and Satterly also were engaged in important work for the Admiralty under the direction of Professor McLennan. Professor Watson Bain has been appointed Chemical Adviser to the Canadian War Mission at Washington.

Miss Ryley, who has kept a general oversight of the service in the Dining Hall given to the Royal Air Force, has devoted most of her time to the direction of dietetic work in the hospitals throughout the Dominion under the supervision of the Invalided Soldiers' Commission. At their request she went to Washington to explain to the authorities in charge of American Hospitals the nature of the work that has been carried out in Canada.

The military units connected with the University continued to perform their duties very effectively. At the request of the Minister of Militia, the overseas Officers Training Depot raised a company for the First Canadian Tank Battalion which left for England in June. The 67th Battery of Artillery maintained its high character for efficiency and sent drafts overseas.

During the campaign for the Victory Loan in December, a special request was made to the students to undertake a share in canvassing. The committee reported that they secured 2,710 subscriptions amounting to $343,300. In response to the appeal for the British Red Cross in October the staff contributed $4,500 and the students $2,417. In January, for the Patriotic and Red Cross Fund the staff gave $9,950 and the students $1,700.

In November, the first edition of the Roll of Service was published under the editorship of Professor G. Oswald Smith. This will be followed by a second edition in a very short time.

Important proposals with regard to the constitution of the General Course in Arts were introduced into the Faculty Council and will probably result in beneficial changes being brought into force in 1919. It was decided to make the study of the German language and literature optional in all specialist courses except those in Chemistry which will require of students a reading knowledge of technical articles in German. Spanish has been introduced as a subject of the General Course. This language has grown rapidly in popularity, the enrolment in the pass course having risen from 21 in 1916-17 to 45 in 1917-18, and in the honour course of the first year from 10 in 1916-17 to 53 in 1917-18, which reflects an interest in Spanish that is universal on this continent.

For the first time a special fund was set apart by the Governors for Research. Investigations under this fund were conducted in the Faculties of Medicine and Applied Science, though owing to the many and quick calls for medical men to go overseas on military duty, problems undertaken were not finished. Among the most important investigations were those made in regard to physiological and pathological conditions connected with the functional re-education of returned soldiers in the Hart House.

In the Faculty of Applied Science a School of Engineering Research has been established in which extended investigations were conducted in problems of thermodynamics, hydraulics, strength of materials, mining, metallurgy, electricity and chemistry. To quote from the Report of the Secretary, "The results are of much interest and very considerable value not only to the several sciences concerned but to practical industry. Some ten papers embodying the results will be published. The work has aroused great interest and activity in research in the Faculty of Applied Science and has emphasized to the undergraduate the importance of investigation work. This is particularly desirable at this time when the country is awakening to the necessity for the universities to attack, more than they have done in the past, the problems relating to the raw materials and industries of the country. In addition this work has been inaugurated just when manufacturers are learning the advantage of employing in their laboratories and factories men trained in research methods, and just at a time when the Dominion Government seems about to build and equip a Bureau of Standards and a Research Institute for specific industries which will require many research men. This sudden demand for research men must be met by the University. One of the primary objects of the School of Engineering Research is the training of men for such work."

Graduate Fellowships were awarded to students from five other Canadian Universities, and there is no reason to doubt that on the conclusion of the war many more applications will be received for assistance in graduate work. This system of Fellowships should be perpetuated and enlarged if the University is to fulfil a national service in training highly qualified specialists for the Dominion.

On October 25th, 1917, His Excellency the Duke of Devonshire opened the Connaught Laboratories for the preparation of sera, antitoxins, and vaccines, and for investigations similar to those conducted in the Pasteur, Lister and Rockefeller Institutes. The Laboratories, which are splendidly equipped, the stables, and the accompanying farm of fifty-eight acres are the gift of Colonel A. E. Gooderham, who has devoted a great deal of care to the perfecting of this beneficent Institution. At the opening ceremony the Premier of the Province announced that the Government would make a grant of $75,000 for endowment of the laboratories, and to this amount $25,000 has been added making a total of $100,000, the proceeds of which are to be devoted to investigation of problems in preventive medicine, and to the endeavour to provide means whereby "the incidence of and the mortality from communicable diseases may be lessened." On the evening of the same day, Dr. Simon Flexner of the Rockefeller Institute of New York, addressed a large gathering in the Convocation Hall on "The War Activities of the Rockefeller Institute." The opening of these laboratories was one of the most important steps ever taken in the development of the public health of this Province.

A forward step taken during the year was the creation of a Faculty of Music, of which Dr. A. S. Vogt was appointed Dean, F. A. Mouré, Esq., lecturer in the History of Music and Organist of the University, Dr. Ham, lecturer in Church

Music, Healey Willan, Esq., lecturer in Theory of Music, and H. A. Fricker, Esq., lecturer in Choral and Orchestral Music. The establishment of this faculty is certain to result in the creation and maintenance of higher standards of music in the Province. This faculty will assume the conduct of the Local Examinations in Music which now have been in existence for eighteen years. The Senate has disaffiliated the three institutions which have hitherto been connected with the University.

For the sixth year organ recitals have been given under the direction of Mr. F. A. Mouré, though only nine out of the fifteen projected recitals took place on account of the closing of the Convocation Hall through shortage of coal. Mr. Mouré himself gave five and one each was given by Miss Helen Fotheringham, Mr. Richard Tattersall, Mr. A. E. Whitehead and Mr. Healey Willan.

Lectures open to the public were delivered by Dr. George Sarton, of the University of Ghent and Lowell Lecturer at Harvard University, on "The New Humanism," and "The Science and Civilization at the Time of Leonardo da Vinci," and by Professor T. Brailsford Robertson of the Department of Biochemistry and Pharmacology of the University of California, on "The Chemical Foundation of the Process of Growth in Living Organisms."

At the Commencement held on May 17, honorary degrees were conferred upon the Earl of Reading, Ambassador of Great Britain to the United States, and on Mr. Elihu Root, both on personal grounds and to signalize the fact that the two great sections of the English-speaking peoples are so closely united in the conduct of this war. Unfortunately, His Excellency the French Ambassador at Washington was unable to leave his duties to be present and receive his degree.

In addition to the gift of the Connaught Laboratories by Colonel A. E. Gooderham referred to previously, I have to record these notable benefactions to the University: Mrs. Warren has continued for the fourth year the payment of the salary of the Director of Social Service, and for the equipment of a library for the same department Miss McCormick contributed two thousand dollars; Sir Edmund Osler, Sir Joseph Flavelle and Colonel Leonard again have given four fellowships of $500 for postgraduate work, and the American Alumni Association their fellowship for the same amount; for special investigations in the Pathological Department under Dr. Detweiler, Sir Joseph Flavelle and Sir Edmund Osler have each contributed one thousand dollars; for work in Dental Research one thousand dollars has been given by the Canadian Oral Prophylactic Association; Dr. R. A. Reeve donated a prize to be awarded in the Faculty of Household Science in memory of his wife; two scholarships were also provided in the Department of History by Mr. Justice Riddell and W. D. Matthews, Esq., of the value of $200 and $100 respectively.

The first award was made at the May Convocation of the Bonne Entente Prize which was provided, as I said in my past report, by visitors from the Province of Quebec.

All of which is respectfully submitted.

R. A. Falconer,
President.

November 15th, 1918.

Appendix A.

(1) Report of the Principal of University College.
(2) Report of the Dean of the Faculty of Medicine.
(3) Report of the Dean of the Faculty of Applied Science.
(4) Report of the Dean of the Faculty of Forestry.
(5) Report of the Dean of the Faculty of Education.
(6) Report of the Librarian.
(7) Report on University Extension Work.
(8) Statement regarding the Biological Museum.
(9) Statement regarding the Geological Museum.
(10) Statement regarding the Palæontological Museum.
(11) Statement regarding the Mineralogical Museum.
(12) Report of the Director of the Antitoxin Laboratory.
(13) Report of the Director of the Courses in Social Service.
(14) Report of the Physical Director.
(15) Report of the Superintendent of the Dining Hall.

(1) Report of the Principal of University College (Professor Hutton).

The Latin department of University College has sustained since my last report two blows, one foreseen; the second, which was the first in time, quite unexpected.

Dr. G. W. Johnston, Associate Professor, died in May last, after a short illness; he was never a man of very robust health, but it is only too probable that he hastened the attack to which he succumbed by the unsparing devotion with which he filled up from November to May the gaps left in the work of teaching Latin by the longer illness of his chief, Professor Fletcher.

It was always his wont to take any extra work that was going and to spare his colleagues: he was overworked therefore last spring beyond the degree of overwork to which he had accustomed himself. His death came as a shock to his colleagues in the department not unattended with a certain compunction, that they had not interfered sooner with a worker whose spirit was always too willing and eager for the weak flesh.

The sorrow of his colleagues has been equalled, to say the least, by that of his pupils; no man knew his individual pupils better, though Professor Fletcher knew them not less well; no man took a livelier personal interest in his pupils or passed judgment more indulgent or kindly on them.

Professor John Fletcher was ill for some eight months; it was characteristic of him that he continued his lectures in the college till he was found one morning in a faint at his door. He never really recovered, and after a few months in Florida which did not help him, returned to Toronto in May in time to attend the funeral of his friend and colleague of the same department; he lingered on until July.

His was "the open door," one of his pupils had written: the room whither each of them could always resort for unfailing sympathy and help: his heart was especially with "the weaker brethren" (and sisters) whom the haste and poor workmanship, or rather the overcrowded programme of our school systems, launches upon the university, viz., ill-equipped with the rudiments of Latin. Their foundations have well nigh slipped, and it is all even a sympathetic teacher like our

late colleague can do to keep any heart in them. He took extra work upon him at all times for such persons, and fully earned the grateful response they gave him. For the sake of such work he was content to abjure functions and public occasions and limelight of any kind: ἔλαθε βιώσας to the public, and is on that account all the better remembered and more constantly missed by many students. Some of his best classical men were prompted to unusual efforts of academic elegy in order to fitly express their sense of what he had meant for them: few let his death pass wholly in silence: but his death after all was as he wished it: he would have hated a long and lingering emeritus professorship: he wanted to die in harness, he was only out of harness for eight months.

We have carried on without Dr. Johnston and Professor Fletcher during the present session by means of the appointment of W. A. D. Woodhead, of the Universities of Oxford and Alberta.

As the war continues the classes necessarily continue small, and the majority of the women students over the men goes on increasing.

We have introduced one small modification of the occasional student system. Such students have hitherto been treated separately, but this year it was suggested to us by St. Michael's College that if we could open some of our classical classes to their students they would prefer to send them to us formally and officially as students sent by one college (for certain subjects) to another and to pay as a college the fees involved; accordingly we are dealing with St. Michael's itself in these cases and not with the students as individuals. The change is in all respects reasonable and along the lines followed for years past by the colleges of Oxford and Cambridge.

For the first time, this Christmas the college sent the season's greeting officially to all our enlisted men who still survive to receive them: over nine hundred in number. Many answers have been received indicating that the trenches, though very cheery and very busy, were not too busy or cheerful to be indifferent to the old associations of University College. Some of them seemed to appreciate those associations with a sharper zest since they had passed into the realities of the firing line. The realities had not disenchanted them with the ghostlier life of the spirit and of their University and College.

I append the last figures of our numbers:—

UNIVERSITY COLLEGE.

March 1, 1917—	Men.	Women.	Total.
1st Year	96	98	194
2nd Year	85	91	176
3rd Year	51	80	131
4th Year	27	22	49
Occasionals	27	22	49
	300	371	671

Percentage of women 55 2/7

March 1, 1918—	Men.	Women.	Total.
1st Year	126	123	249
2nd Year	49	82	131
3rd Year	47	95	142
4th Year	37	79	116
Occasionals	35	25	60
	294	404	698

Percentage of women 57 6/7

(2) Report of the Dean of the Faculty of Medicine (C. K. Clarke, M.D.).

The affairs of the Faculty of Medicine have been carried on during the past year under very great difficulties, owing to the fact that so many of our staff have gone on military service overseas. This has thrown a heavy burden on those who have been forced to remain, in many instances very much against their will. Those who have undertaken this burden have done so with credit to themselves, and we are under a deep debt of gratitude to them, because they have not escaped criticism by those thoughtless people who believe that the only way of doing their bit is by going overseas. The education of the medical undergraduates is a most important thing from a military standpoint, and all of the staff have recognised their duty.

While it is true that conscription has depleted many of the classes, and the last call has imposed on us a situation that may prove serious if the war is continued for any length of time, many of the men, in the Third Year particularly, enlisted as surgeon-probationers in the Royal Navy, and every branch of the Service has been recruited from the undergraduates. The Third Year has been more affected than any other, but the First Year, which is the largest since 1908, has not suffered to the same extent as some of the others, as so few of those registering have been of military age.

One of the striking facts in connection with the Faculty of Medicine is that women have come to us in large numbers. In 1910 but one woman registered in the first year, and only eleven all told in attendance at that time. This session no less than twenty women entered the First Year, and there was a total attendance of fifty-one women. This is owing largely to the fact that until quite recently other institutions had closed their doors to these students. Under the circumstances it seems almost imperative that some arrangement should be made by the university authorities by which these women can secure the same privileges accorded to women in other Faculties. That is: the building or purchase of a suitable house which may be used as a residence. The arguments in favour of this are numerous and self-evident.

The session was opened for Fifth Year men on August 15th, in order that the students might be ready for military service in the early spring. This arrangement was of great value, enabling the A.D.M.S., of Military District No. 2, to send a draft of A.M.C. men overseas in March.

Five leading members of our already depleted staff left for overseas during the year:—Dr. Goldie, Dr. Roscoe Graham, Dr. W. A. Scott, Dr. A. S. Moorhead, and Dr. W. E. Gallie.

Professor A. B. Macallum, who has been associated with the Medical Faculty as Professor of Physiology and Biochemistry, has severed his connection with the Faculty, much to the regret of all those who are familiar with the distinguished services he has given to the University of Toronto. His name has added lustre to the institution, and possibly no one is better known abroad than Professor Macallum. He took the most intense interest in the affairs of the university, and was respected and admired by all who knew him well. We congratulate him on his appointment to the position of Chairman of the Advisory Council for Scientific and Industrial Research, which will benefit greatly by its association with one as distinguished as he.

It was found a difficult matter to fill the place of Professor Brodie in Physiology, but fortunately we were able to secure the services of Dr. Winifred

Cullis, D.Sc., who not only filled the position with distinction, but proved to be an inspiration to all of the students who came in contact with her. She was an admirable teacher, and her personal influence with the students was a marked feature of her stay with us.

The University is to be congratulated on the success attending its efforts to find suitable men to fill the positions of Professor of Physiology and Biochemistry. Dr. McLeod and Professor T. Brailsford Robertson come to us with records of unusual achievement, and will no doubt develop their departments in a way that will reflect credit on themselves and the University.

As has been the case during the progress of the war we have again to record the loss of many of our distinguished graduates and students, and the death of Dr. John McCrae has particularly impressed both the public and the professional men.

(3) Report of the Dean of the Faculty of Applied Science and Engineering (Dr. W. H. Ellis).

The number of students registered in the Faculty in 1917-18 was 164, distributed as shown by the following table:—

First Year Undergraduates	72
Second Year Undergraduates	39
Third Year Undergraduates	29
Fourth Year Undergraduates	24
	164

In September, 1917, Prof. H. E. T. Haultain, of this Faculty, was appointed Vocational Officer for Ontario under the Military Hospitals' Commission, now known as the Invalided Soldiers' Commission. Prof. Haultain appealed to the Council of the Faculty of Applied Science for assistance in carrying out classes for the vocational re-education of returned soldiers, and in response to this appeal classes for the training of teachers of bedside and ward occupation for returned soldiers were formed. The aim of the work is partly therapeutic, but also is closely related to preparation for a vocation, and hence the classes are called classes in Occupational Therapy. The intention is to provide instruction for women who will teach invalided soldiers in the hospitals the subjects contained in the following groups: metal work, woodwork, toy making, hand loom weaving, block printing and stencilling, basketry, beadwork and embroidery, bookbinding and leather work. The courses so far have been six weeks in duration. It is realized that a much longer course would be desirable and a plan for a six months' course has been drawn up, but on account of the great need for hospital workers only the shorter courses have so far been actually carried out.

The organization of these classes was begun under a Committee of Management of which Prof. C. H. C. Wright was chairman and Prof. Arkley the secretary. Prof. Price, who is also a member of this committee, has done invaluable service in the organization and carrying on of the business connected with these classes.

The first instructor employed in these classes was Miss Brainerd. Mr. Banks and Mr. Jeffreys also gave instruction to the classes at the beginning in Modelling and Drawing. At present the classes are under the charge of Mr. J. W. Chester, as chief instructor, assisted by Miss Wathen, Miss Scott, and Mr. Paton. Up to

the present 135 have been placed as bedside teachers in hospitals, and of their efficiency very gratifying reports have been received.

Classes for the industrial instruction of invalided soldiers whose disabilities prevented their resuming their former vocations have also been organized and inaugurated. Courses in the "Management of Gasoline and Oil Tractors for Agricultural Work," "Automobile Repairs and Operation," "Estimating for Building and Construction," "Electricity in Relation to Electrical Machinery," "Machine Shop Drawing" in co-operation with shop training by the Russell Motor Car Co. are at present under way, and others will be started in the near future. A number of returned soldiers have already been enabled by means of these classes to take good positions in such work. The University and the Athletic Association have very kindly permitted the Faculty of Applied Science to occupy the temporary gymnasium for work on farm tractors and automobile mechanics. In the eastern wing of the Mining Building a new floor is being laid to accommodate Occupational Therapy and some vocational classes for soldiers. It is intended to continue this necessary work during the coming session in combination with the regular teaching and research work of the Faculty. The members of the Faculty of Applied Science and Engineering who are instructors in this work are as follows:—Messrs. Arkley, Guest, Margison, Price, Watson, and Zimmer.

The establishment of a School of Engineering Research within the Faculty of Applied Science and Engineering of the University of Toronto was recommended by the Council of the Faculty of Applied Science in the spring of 1917. Funds were provided by a vote of $5,000.00 for the first year by the Board of Governors of the University. The school is under the direct supervision of a Committee of Management composed of fifteen members drawn from the Faculty Council. To this Committee is entrusted the selection of researches proposed by members of the staff, and the disposition of funds for conducting them. During the present academic year two research assistants have been engaged on investigation work, one in Electrical Engineering and one in Applied Chemistry. Six other members of the staff are also at work upon research problems.

The School of Engineering Research was organized with the primary aim of training men for research positions in industries, and in research laboratories of the Mellon Institute type which are about to be established in Canada. Both of these will require a steadily increasing supply of men who can either conduct research work, or carry out such work under direction. This implies among other things the performance of research in the school. In the selection of problems the Committee of Management has followed the practice of the old and established university research laboratories of the world in recognizing the necessity of encouraging the two kinds of investigation, namely, the specific problem relating to a specific industry or raw material and having a specific end in view, and the general problem which seeks for some underlying principle of generalization.

The following is a general summary of the results obtained:—

Prof. Angus.

A series of tests was carried out to determine the strength of cast iron in bending for purposes of machine design. A large number of specimens of various sizes and shapes were tested. The results will appear in two leading American journals in June.

A research was conducted on the flow of water in open channels with the object of determining the coefficient of friction and finding the surges in them for unsteady flow. This work is still in progress.

A tunnel was prepared for aeroplane testing, but no work can be done till the balance arrives from England.

Experimental work was done on a large turbo-generator and on turbine pumps at the Island filtration plant.

Prof. Arkley.

An investigation was conducted to compare the coefficients of heat transfer through walls made of different building materials. The results of some twenty-five tests, with sketches of apparatus used in making them, and the deductions to be drawn therefrom will be published shortly, and will contain information which should be of special interest to heating engineers and architects.

Prof. Gillespie.

This investigation was undertaken by the City Architect's Department, Toronto, and the Department of Applied Mechanics, University of Toronto, in order to throw some light on the behaviour of reinforced concrete construction in factory buildings under the conditions of service. Six buildings have been tested. Selected floors were loaded in a predetermined manner and precise extensometer measurements were made. It is hoped from the results to check the reasonableness of the existing regulations governing the design of such buildings and to suggest changes therein. This work will be published shortly.

Prof. Anderson.

An apparatus was devised to locate the causes of vibrations in buildings and measure their amounts.

Prof. Haultain.

A simple method has been devised for the separation of graphite from mica, which has been hitherto the chief difficulty in the treatment of the low grade graphite ores which are abundant in Ontario and Quebec. Other milling details of these low grade ores were studied. An assay method for graphite was worked out which on account of its simplicity is suitable for use in the concentrating mills.

A new electrolytic apparatus has been devised for the assay of copper and lead ores which simplifies the usual manipulation and eliminates some of the defects hitherto found in such apparatus.

Prof. Rosebrugh and Prof. Price.

This research is the first of a series undertaken on electrical problems affecting design and operation in the distribution system of the Hydro-Electric Power Commission of Ontario. The first problem attacked involved a thorough study of current transformers employed to operate 110,000 volt oil switches for controlling and protecting the transmission lines and branches. Most interesting and unexpected facts have been brought to light. A paper based on the work is now being prepared which will contain complete technical information on methods, results, and conclu-

sions. As to the monetary bearing of this work, it may be reported confidentially that the Hydro engineers have welcomed our work and state that as a direct result of it they have decided positively against the purchase of thirty-six proposed current transformers, and are proposing proper alternatives affecting 110,000 volt switching apparatus worth some hundreds of thousands of dollars.

Prof. Price and Prof. Stewart.

The object of this research is to produce a new form of seconds pendulum clock which, when once adjusted, will maintain its rate for many years without attention. The mechanism is electrically operated and avoids the use of escapement. Great difficulty was experienced under war conditions in obtaining the necessary materials. It is hoped to complete and prove the clock during the next year. The proving of it involves a large amount of astronomical work. This work has pointed the way to quantitatively evaluating sources of errors in clocks, which errors have been previously examined relatively crudely.

Prof. Boswell.

In the course of an investigation of the conditions under which silicic acid and ferric hydroxide gels catalyse certain reactions it was found necessary to measure the amount of adsorption of arsenious acid from solutions of increasing concentration and the effect upon this adsorption of sodium hydroxide solutions. The adsorption curves have been constructed and an interpretation given to the constants of the exponential equations of the curves. This work will be published shortly.

A second investigation has to do with the mechanism of fusion reactions between the caustic alkalis and various organic compounds, particularly phenols and sulphonic acids. The course of the chemical changes in these reactions was determined and the causes of low yield of product fixed. It was found possible to increase the yield of carbolic acid in the commercial process of manufacture by ten per cent. and thus make the yield almost quantitative. In view of the large industrial application of caustic alkali fusions in organic chemical industry, as in the manufacture of carbolic acid, alizarin and indigo, this work should be of interest and value. A new general reaction taking place in such fusions was discovered. This work will be published shortly.

A third investigation was conducted with the object of determining the state of an electrolyte in solution at various stages of concentration. This is directly connected with the problems of adsorption and catalysis, and are fundamental to the basic problems of plant growth. The experiments gave the information expected of them and indicated the direction further work must take. This is proceeding. The results so far as obtained will be published shortly.

It thus appears that the School of Engineering Research in the year of its inauguration has performed research work giving results of much interest and very considerable value not only to the several sciences concerned but to practical industry. Some ten papers embodying the results will be published in various engineering and research journals throughout America, as well as in a bulletin which the committee of management proposes to publish. In view of the fact that this is the first year of operation of the School of Engineering Research the work actually accomplished is considerably greater than might reasonably be expected, and justifies, I think, completely the expenditure made by the University. The

actual results obtained will, no doubt, increase year by year. The work has aroused great interest and activity in research in the Faculty of Applied Science, and has emphasized to the undergraduate the importance of investigation work. This is particularly desirable at this time when the country is awakening to the necessity for the universities to attack more than they have done in the past the problems relating to the raw materials and industries of the country. In addition, the school has been inaugurated just when manufacturers are learning the advantage of employing in their laboratories and factories men trained in research methods, and just at a time when the Government is about to build and equip a Bureau of Standards and a Research Institute for specific industries which will require many research men. This sudden demand for research men must be met by the University. One of the primary objects of the School of Engineering Research is the training of men for such work. However, to adequately meet the demand it is necessary to greatly increase the number of research assistants and the amount of the grant.

It is extremely desirable that as soon as possible plans may be decided upon for the accommodation of the Departments of Electrical Engineering, Strength of Materials and Architecture, which were formerly housed in the old Engineering Building. I beg also to once more call attention to the need of a laboratory for technical chemistry on a larger scale than anything we at present possess, and in consideration of the importance of the clay industries of this province I would again urge the desirability of a ceramic laboratory.

During the past year, in addition to the loss of the services of the instructors who have been employed on military service overseas and elsewhere, the school has been deprived of the valuable services of Professor Bain, who has been appointed chemical adviser to the Canadian War Mission at Washington. Professor Bain's appointment to this responsible position is an honour both to himself and the University. It has of course thrown much additional work and responsibilities upon the remaining members of the staff in Applied Chemistry—Professors Ardagh and Boswell and Mr. Rogers.

(4) Report of the Dean of the Faculty of Forestry (Dr. B. E. Fernow).

The registration of students for the session came up to the same number as the two previous years, namely ten, four newcomers making up for the number lost by graduation or otherwise.

At the end of the session two of the First Year men, having attained the military age, enlisted before finishing their year's work.

From the small contingent of graduates and undergraduates who had not yet completed their course 80 are enlisted, 31 being graduates. Of these 80, one has attained to the position of major, five to that of captain, and 43 to that of lieutenant. Only 13 are to be found in forestry battalions, 12 have given their life for their country, 18 have been wounded, gassed, or otherwise incapacitated, and two are prisoners at present writing. Six have been decorated with military cross or medal, and three mentioned for bravery.

In the absence of Professor Millar, enlisted as a captain in an American Forestry Regiment, the Dean and Dr. Howe added three of his courses to their own work. Professor White, having accepted a position in the provincial forest service, by arrangement with the authorities, was permitted to carry on his former lecture work.

It is to the credit of the Faculty that every year during the summer months the Commission of Conservation has employed members of the Faculty to carry on important investigation work, in which also some of the students are given opportunity to participate. An extensive investigation into what becomes of the cut-over pulpwood lands was started last summer by Dr. Howe, and is to be continued during the present season.

It may also be of interest to record that with the year 1917 the *Forestry Quarterly*, which was for some time published with the assistance of the University, was amalgamated with the Proceedings of the Society of American Foresters into the *Journal of Forestry*, the Dean becoming the permanent editor of this, the only technical forestry journal on this continent.

(5) Report of the Dean of the Faculty of Education (Dr. Wm. Pakenham).

It is to be noted that while the total registration in the Faculty of Education has changed but little since the war began, the personnel of the student body has changed much. The number of graduates in Arts has fallen by almost 40 per cent., and the number of men students by about 45 per cent. It is not likely that the movement of men away from the teaching profession will cease after the war, but if the recent legislation which limited High School teaching posts to Graduates in Arts is to achieve satisfactory results, there must be a marked increase in the registration of graduates. The appearance of 26 students in the courses for degrees in Pedagogy is worthy of note. There is promise in this interest in the advanced study of education.

The women students are now in possession of their new waiting and rest rooms. The results are quite satisfactory. When the gymnasium and lecture-rooms are added, the accommodations for students will approximate what was planned when the present buildings were erected.

(6) Report of the Librarian (H. H. Langton, Esq., M.A.).

The number of volumes added to the Library during the year ending June 30, 1918, is 3,364, and the number of pamphlets 630, making the total contents of the library 151,799 bound volumes and 50,926 pamphlets.

Statistics of the use of the Library by students, with comparisons for the two previous years are as follows:—

	1915–16	1916–17	1917–18
No. of day tickets used	28,014	18,728	21,203
No. of books taken out for the night	12,006	9,446	9,698
Average number of students at any one time	67	49	48

In consequence of the falling off in the number of student readers, it was found possible to accommodate the readers in one reading-room, and thus to give the University Hospital Supply Association a much-needed additional workroom in the other student reading-room. It will probably be possible to continue this arrangement until the end of the war.

Purchases of books have been proceeding during the year under difficulties, owing partly to the impossibility of obtaining shipments from Europe. Books, however, have been bought and are being stored for the library in the respective countries.

During the year leave of absence for National Service purposes was given to two members of the library staff, who supplied substitutes for their library duties.

(7) Report of the Committee on University Extension Teachers' Courses (Professor A. T. DeLury, Acting Director.)

Teachers' Classes.

As part of the course leading to the degree of Bachelor of Arts for teachers and others who are unable to attend the lectures of the regular session, classes were held during the winter from October 1st to the time of the examinations. These classes met four afternoons a week and on Saturday mornings. The subjects offered were Second Year English, French and Physics and Third Year English, Political Economy, and Chemistry. The enrolment was 29, an increase of 7 over last year. Of these, 10 were new students. One student gave up the work; 25 were recommended for examination in April.

Summer Session and Correspondence Work.

The number in attendance at the Summer Session of 1917 was 17, and the number taking correspondence work during the regular academic terms was 19. These numbers are somewhat smaller than those of the preceding year, and smaller also than the numbers enrolled in the Teachers' Classes. The experience of the past two years would seem to indicate that the teachers who attend the Summer Session and take the complementary correspondence work weaken under the continuous demand on their time. Those taking the Teachers' Classes have their summers free. Further, under the existing schedule of fees, the teacher who takes the work of the Summer Session has to pay in fees $94.00 for the work of the Second Year and $83.00 for the work of the Third Year, while the corresponding fees of those taking the Teachers' Classes was $52.00 in each year.

As the residences for men were occupied by the Royal Flying Corps, it was possible during the Summer Session of 1917 to offer accommodation only to women students. The rooms in the Queen's Hall Residences, numbers 7, 9, and 4, Queen's Park, were all taken, and meals for all women students in residence were furnished in the main dining-room.

The courses which have been given during the Summer Session by the Department of Education in co-operation with the University of Toronto were directly under the control of the Department of Education. As the connection with the University was merely nominal, the report of these Summer Courses is not included in this report.

Of the 19 enrolled in Second and Third Year Correspondence Work, 10 were enrolled for the first time. Pressure of school work made it necessary for three of these to withdraw. The remaining students sent in work regularly from the beginning of October to the end of March. There were 311 bulletins sent out to these students, and 384 exercises were received from them. The reports from the instructors who examined the correspondence work indicate that the essays and other exercises for the most part were satisfactory, not a few of them affording evidence of marked ability and originality.

Up to the present, 73 students have enrolled in the course; of these, two have transferred to the regular course, several have enrolled as occasional students, but many others have given up the work for the reasons stated above. The present enrolment, including the Summer Session, Correspondence Course, and Teachers' Classes is 56.

In addition to those enrolled in Second and Third Year Correspondence Work, there were 21 preparing for the Summer Session in Faculty Entrance, 16 in Normal Entrance, and 2 in Commercial subjects. A total of 793 bulletins have been sent out and over 572 exercises have been returned.

To bring the Summer Courses to the attention of the teachers, a circular was sent in the spring to each teacher in the Province, briefly announcing the Course in Arts and the Advanced Courses in Education. The replies to these circulars seem to indicate that there are a great many interested.

Local Lectures.

Early in September, a new list of lectures was prepared and sent to those organizations that had been interested. Up to the present, 43 lectures have been arranged, many in series of 6 to 10 lectures, and all of them outside Toronto. The audiences, as before, were Canadian Clubs, Teachers' and Women's Institutes, Reading Circles, Scientific and Church organizations. Stress of work and the uncertainty of train service have made it difficult this year for lecturers to accept invitations.

(8) Statement Regarding the Biological Museum (Professor B. A. Bensley).

In the course of the year re-arrangement and classification of specimens incident to the transfer of part of the collections of the Royal Ontario Museum of Zoology have been completed, and a card-catalogue, covering the vertebrate classes and the mollusca, has been prepared. The taxidermist service has been organized, so that material received can now be mounted for exhibition which was formerly stored. A series of coloured casts of Canadian fishes is in course of preparation, and will be made a distinctive feature of the Museum. A considerable number of specimens have been received from Lake Nipigon by arrangement with the Provincial Government.

The following donations have been received:—

An adult shell and young mounted specimen of the green sea-turtle from Ascension Island, presented by the late Mrs. E. H. Keating, Toronto.

A bison skull, presented by Mr. Geo. W. Meyer, Toronto.

Specimens of weasel, mole, and small-striped skunk, presented by Mr. Geo. H. Corsan, University of Toronto.

A valuable collection of mounted birds of Alberta, formerly deposited and now presented by Mr. M. J. Haney, Toronto.

The "Tregarthan Collection," consisting of horns of typical African antelopes and other valuable natural history objects, presented by Trinity University, through Provost T. C. Macklem.

Skulls of tiger and babirusa, presented by Dr. and Mrs. Alexander Bowie, Toronto, formerly of Straits Settlements, Singapore.

Two mounted specimens of hooded merganser, presented by Mr. Alfred Kay, Port Sydney, Ont.

A wood-duck, presented by the late Col. Geo. A. Sweny, Toronto.

A swan, presented by Mr. H. R. Winter, Toronto.

A bison skull, presented by Mr. Sidney Green, Bright, Ont.

A walrus skull, presented by Sir William MacKenzie, Toronto.

Specimens of opossum, golden pheasant, Canada goose, civet cat, beaver, crane, and Japanese deer, from Riverdale Zoological Gardens and High Park, presented by the City of Toronto.

(9) Statement Regarding the Geological Museum (Professor A. P. Coleman).

The chief work done in the gallery during the past year was the installation of a wall case devoted to the display of copper and silver ores. A new wall case has also been placed in position: it is proposed to extend to this case the large collection of polished slabs of marbles and granites which had been added to during the year.

The large concretion presented by Professor Parsons has been mounted, and a number of framed photographs of the Rocky Mountains have been placed on the walls.

The chief acquisitions during the year were:—

By Donation:

Manganese ores.—A. J. Curle, Esq., per Dr. Walker.

Native gold from Clearwater Lake, Manitoba.—Mr. J. S. DeLury, per Mr. MacLean.

Edmonton lignite—Drumheller Land Co., per Dr. Parks.

Lignite, bricks, economic clays, etc.—Estevan Brick and Coal Co., per Dr. Parks.

Michigan copper ores.—Dr. W. J. Going, per Rev. A. H. Going, Lindsay, Ont.

Large concretion from Port Arthur.—Mr. J. F. Hewittson, per Professor Parsons.

Clay concretion from Toronto.—Mr. Dillon Mills, Toronto.

Sphalerite from Chimnet mine, Ontario.—Mr. Mollins.

Molybdenite from Hastings county.—Senator Richardson, Kingston, per Dr. Parks.

Ferremolybdenum.—Tivani Company, Belleville, per Dr. Parks.

Coals and rock specimens from Edmonton.—Twin City Coal Co., per Dr. Parks.

Syenite from Marmora and Coutchiching sandstone.—Dr. T. L. Walker.

Elk conglomerate from Fernie.—Dr. T. L. Walker.

Large photographs of the Rocky Mountains.—Hon. Charles D. Walcott, Washington.

Photographs of the Canadian Rockies.—J. Wheeler, per Professor Coleman.

Full series of the geological publications of the University of California.—Univ. of California.

By Collection:

Tillites and striated stones and copper ores from South America.—Professor Coleman.

Coals rocks, economic clays from Alberta and Saskatchewan.—Professor Parks.

By Purchase:

Series of polished slabs of marbles and granites.

Semi-precious stones.

Decorative slabs of californite and other substances.
Antimony ores.

(10) Statement Regarding the Palæontological Museum (Professor W. A. Parks).

During the year the series of wall cases in the east gallery was extended by two sections; the first of these has been filled with representative Canadian material to the close of the Onondaga period; the second case will extend this purely Canadian set through the Cretaceous period.

The Director spent ten weeks of the summer of 1917 in collecting Cretaceous and Tertiary fossils in Western Canada. A very large series was obtained which will be of great value in filling gaps in our hitherto rather weak representation of western fossils, also, for purposes of exchange, to which part of the material has already been devoted.

Laboratory work during the winter has been directed more particularly to the preparation of vertebrate material. All the dinosaur bones, collected some years ago by Mr. MacLean have been put in good condition and a number of them mounted in a case in the gallery. The remains of a mastodon, obtained by purchase several years ago, have been partially restored; it is found that we have most of the cranium, nineteen ribs, one very perfect scapula, nearly all the pelvic girdle, a number of vertebræ, the bones of one foot and parts of others, one tusk, and some old fragments. It is proposed to mount the skeleton as it stands, in the hope that the leg bones of at least one side may be obtained from some other source.

It was found during the winter that the changes in humidity were causing serious disintegration of the mammoth tusks and other objects of a like kind in the gallery. These were taken down and repaired: it is hoped that the treatment of boiling in paraffine which they have received will arrest the progress of decay.

The more important acquisitions during the year were as follows:—

By Donation:

Carboniferous fossils from Newfoundland.—Mr. J. B. Tyrrell, Toronto.

Fossils from Lyme Regis, England.—Professor T. L. Walker.

Huronia and Lyellia from Manitoulin Island.—Dept. of Zoology.

Inoceramus sagensis—Mr. Pierce, Rocke Percée, Saskatchewan, per Dr. Parks.

Valuable series of books and photographs.—American Museum of Natural History, New York.

By Exchange:

Series of Chemung fossils.—Professor G. D. Harris, Cornell University.

By Collection:

Large series of Cretaceous and Tertiary fossils from Western Canada.—Professor Parks.

Mesozoic fossils from South America.—Professor Coleman.

By Purchase:

Rare cystids, crinoids, trilobites, and other fossils.—Ward's Natural Science Establishment, Rochester, N.Y.

(11) Statement Regarding the Mineralogical Museum (Professor T. L. Walker.)

The collections of the University of the Royal Ontario Museum of Mineralogy have been enlarged during the year by donations and exchanges.

The following lists contain the names of our chief benefactors:—

By Exchange:

Kawasaki, S., Government General of Chosen, Korea.
Ward's Natural Science Establishment, Rochester, N.Y.

By Donation:

Alcock, Dr. F. J., Yale University, New Haven, Conn.
Alexander, Capt. J., Carcross, Y.T.
Bradley, W. W., Golden, B.C.
Coleman, Dr. A. P., University of Toronto.
Corless, C. V., Coniston, Ontario.
Curle, A. J., Kaslo, B.A.
Drum Lummon Copper Mines, Vancouver, B.C.
Electric Point Mining Co., Cummins, Washington.
Faull, Dr. J. H., University of Toronto.
Hess, F. L., U.S. Geological Survey, Washington, D.C.
Hewitson, J. F., Port Arthur.
Knight, C. W., Ontario Bureau of Mines, Toronto.
Melville, W. B., Sault Ste. Marie.
Miller, Dr. W. G., Ontario Bureau of Mines, Toronto.
Parks, Dr. W. A., University of Toronto.
Parsons, Professor A. L., University of Toronto.
Thomson, J. E., University of Toronto.
Tregarthen, C., Kimberley, South Africa.
Wells, J. D., Usk, B.C.

(12) Report of the Director of the Connaught and Antitoxin Laboratories (Dr. J. G. Fitzgerald).

The work of the year in these laboratories has been of a highly varied character.

The routine production of public health biological products for distribution by Provincial and local Boards of Health has increased greatly in amount. The Provincial Board of Health of Ontario has continued to obtain from this Department all the products required for free distribution in Ontario. The Bureau of Health of Saskatchewan has begun the free distribution of diphtheria antitoxin and smallpox vaccine in that Province. This laboratory furnishes the antitoxin and vaccine so supplied. The Provinces of Nova Scotia, New Brunswick, and Alberta also obtain from this Department antitoxins and vaccines, but in none of these Provinces is there general free distribution as in Ontario and Saskatchewan. Municipal Boards of Health in Quebec, Manitoba, British Columbia, and the colony of Newfoundland obtain from these laboratories serums and vaccines. The needs of the Department of Militia and Defence have been met and certain overseas requirements also.

With the presentation and formal opening of the new Connaught Laboratories the name of this Department will in future be the Connaught and Antitoxin Laboratories. The opening is described as follows in the *University Monthly* for November, 1917:—

"The Connaught Laboratories and the fifty acre farm which Colonel Albert Gooderham has so generously provided in order that the preparation of serums and vaccines may be carried on, were formally presented to the University by Colonel Gooderham on October 25th, and at the same time officially opened by His Excellency the Governor-General.

The occasion was an unusual one, and was especially significant in that the establishment of the first research foundation in Preventive Medicine was announced by Sir William Hearst. On behalf of the Provincial Government, the Premier stated that seventy-five thousand dollars was to be voted at the next session of the legislature to endow research in Preventive Medicine in the new laboratories, the income from which will be devoted entirely to research, since the laboratories themselves are entirely self-supporting. It was announced that a sum of approximately twenty-five thousand dollars from another source is available, and the income derived from this, too, will be used for the same purpose. Thus the foundation at the outset amounts to about one hundred thousand dollars.

Research work will be undertaken to endeavour to provide means whereby the incidence of and the mortality from communicable diseases may be lessened. The work at present being done on similar foundations at the Pasteur Institute in Paris, the Lister Institute in London, and the Rockefeller Institute in New York will serve as a model.

The opening itself was a very simple ceremony. The presentation speech by Colonel Gooderham, acceptance on behalf of the University by Sir Edmund Walker, the speech of His Excellency declaring the laboratories open, the important announcement of Sir William Hearst and a word from President Falconer, constituted the programme of the formal part of the opening. Subsequently a moving-picture film was shown, illustrating phases of the work carried on in the laboratories, this was followed by a tour of inspection of the buildings, where various products of the department were shown, and finally tea was served. Adequate transportation and other facilities were provided. The guests included, in addition to those already mentioned, His Honour the Lieutenant-Governor, members of the Provincial Government, the Board of Governors, the Bishop of Toronto, representatives of neighbouring universities, representatives also of various interested Government departments, both Federal and Provincial, members of the medical profession of the staff of the University, and friends generally of the new laboratories.

In the evening in Convocation Hall, before a very distinguished gathering, Dr. Simon Flexner, Director of the Rockefeller Institute for Medical Research, New York, delivered an extremely interesting and able lecture on the War Activities of the Rockefeller Institute. Dr. Flexner pointed out some of the important contributions to science which members of the Institute have made, and are making, having especially in mind those of very great value in war-work in the saving of lives and in the minimising of resultant disabilities. The University was extremely fortunate in having Dr. Flexner on this occasion as a lecturer. A very hearty vote of thanks to the speaker of the evening was moved by Dr. C. K. Clarke and seconded by Major J. G. Fitzgerald."

There has been established in connection with the laboratories an Honorary Advisory Committee on Scientific Work, the following gentlemen have accepted membership on this committee:—

1. Dr. W. H. Hattie, Halifax, for Nova Scotia.
2. Dr. E. P. Lachapelle, Montreal, for Quebec.
3. Dr. J. W. S. McCullough, Toronto, for Ontario.
4. Dr. Gordon Bell, Winnipeg, for Manitoba.
5. Dr. H. D. Johnston, Charlottetown, for P.E.I.
6. Dr. T. J. Norman, Edmonton, for Alberta.
7. Dr. H. E. Young, Victoria, for British Columbia.

It is anticipated that public health problems which may arise in any Province of a character such that investigational work bearing on them might be done in the Connaught Laboratories will engage the attention of this committee.

Research work of value from a military standpoint has already been started and the first appointment in connection with the Connaught Laboratories Research Fund has been made. The Board of Governors have had Captain A. H. Caulfeild, C.A.M.C., recalled from France to carry on research work bearing on the preparation of antitoxin for gas-bacillus infection of war-wounds. Captain Caulfeild has been appointed a Research Associate in the Laboratory. The researches made in the Laboratory will consist entirely of work on war problems until the cessation of hostilities.

A number of publications by members of the staff of the Laboratory have appeared during 1917-18, and are included in the report of the work of the Department of Hygiene for the current academic year.

The Director of the Laboratories is under a great obligation to the members of the staff because of the very hearty support accorded him in the work during the past year.

(13) Report of the Director of the Department of Social Service (Dr. Franklin Johnson).

In preparing the report of the Department of Social Service for the year 1917-18, the last report which the present Director will make before retiring to enter the war service of the American Government, the most marked feature to mention is the institution of a Second Year Course. This had been contemplated for some time and was offered for this year. Although attendance was limited to those who had taken the first year work of this Department, or equivalent work elsewhere, yet there were three students who successfully completed the work and were awarded the diploma at the end of the year. Increasing emphasis is being laid in various institutions for social training upon the two year course, and the successful institution of such a course here places this University abreast of the best institutions elsewhere.

Another matter of interest is the presenting to the Department, through the Director, of a fund of two thousand dollars from Miss McCormick to be used for the purpose of building up the library of the Department, thereby advancing social and public work. This fund was placed in the hands of the Director to be used for public service, and Miss McCormick approved this use as the best employment for this fund.

The number of full time students has not decreased in spite of war conditions which bear heavily upon the field of social work. The demand for workers has so

greatly increased that many who contemplated taking the training of the University are offered practical positions without this, and enter untrained into such service. This is a problem everywhere in regard to social training and one which affects all institutions of social training alike. The quality of the students has been high as heretofore, including many college graduates. This is the ideal requirement for entrance, although it is not only unwise but impossible to maintain it as a definite requirement at present.

The graduates of the Department have already almost all accepted professional positions, and the demand for our trained workers is great. Several of our graduates have entered at once into work of large responsibility.

The Department has been as usual active in many ways in the general field of social development; among other things it conducted a course of lectures on social service topics in the City of Hamilton, which continued throughout the entire winter. Such extension work with its possibilities of education and of stimulation of local interest and activity is an important line of usefulness.

(14) Report of the Physical Director (Dr. W. J. Barton).

In view of the further discontinuance of intercollegiate sports, athletic activities were again confined to interfaculty contests. Notwithstanding the smaller registration considerable interest was displayed and players of good calibre took part.

The compulsory regulation of the University in regard to the physical examination of every male student and the assignment of each student either to military drill or to a class for physical instruction has had a most beneficial effect and should be a conclusive argument in favour of compulsory athletics and physical training. Nine hundred and ninety-three men were examined and categorized.

In Rugby nine teams competed for the Mulock Cup, Overseas Training Company winning from Senior Meds in the final. In Soccer ten teams competed, Dentals winning the Championship for the third time in succession.

The Tennis Tournament was very successful and developed many junior players of good calibre.

Existing conditions again prevented the holding of a Track Meet, Harrier races and the Assault-at-Arms.

In the Hockey schedule for the Jennings Cup, ten teams entered and in spite of uncertain weather and the difficulty of arranging dates, a very successful series was played, resulting in the Dentals winning the Cup.

Twelve teams competed in the Basketball Series for the Sifton Cup. All the games were played at the Central Y.M.C.A. and keen interest was displayed. Victoria College won the Championship.

On account of the collapse of the swimming pool, instruction in this important branch could not be given to the men, and the Swimming Instructor devoted his entire time to the women students.

Indoor work and gymnasium classes were replaced this year by classes in physical training under instructors from Military Headquarters. Following the regulation of the Senate all men who were found unfit for military drill were required to take some form of physical work as prescribed by the Physical Director. Two hundred men were organized into classes and attended twice a week. The

attendance was considerably over the 80 per cent. required and the beneficial results at the end of the Session were well in evidence.

The regular lectures in Physical Training were given to the students in the Faculty of Education.

(15) Report of the Superintendent of the Dining Hall (Miss V. M. Ryley).

During the year 1917-18, the Dining Hall of the University of Toronto has not been serving University students as in former years, but has fed only Royal Flying Corps Cadets.

The same principle that I have used in the past in planning the meals for the University students have been used in planning meals for the cadets. Scarcely a day ever passes without some of the cadets personally or in behalf of groups thanking my assistant dietitians for the meals they receive, and they claim that there is no other camp in Canada where the men are fed as satisfactorily and where they enjoy their meals as much as at the University.

As proof of this satisfaction I was asked by one of the officers of the Royal Flying Corps to supervise a second dining hall where more cadets could be fed on the same principle, but seeing the President of the University had already granted part of my time to the Military Hospitals' Commission, as General Organizing Dietitian, my first assistant dietitian was placed in charge of the Royal Flying Corps of the Wycliffe Dining Hall, which is now run on the same principle as the University Dining Hall.

Last summer we started with about one hundred cadets, but the attendance gradually increased until now we are serving between five and six hundred men, or over fifteen hundred meals per day. This means with our very limited seating accommodation, three sittings three times per day, but it is a great pleasure and privilege to be able to do our bit toward increasing the health and efficiency of the cadets by serving well prepared and attractive meals.

APPENDIX B.

(1) Enrolment in the Colleges.
(2) Enrolment in University Subjects.
(3) Registration in Courses in the Faculty of Arts.
(4) Registration of Women Students.
(5) Registration for Graduate Courses.

(1) Enrolment in the Colleges.

The students in University College were enrolled as follows:

——	Greek.	Latin.	Ancient History.	English.	German.	French.	Orientals.	Ethics.
First Year—								
Pass	9	120	87	125	36	101	7	.....
Honours	8	22	28	58	14	52	.....	.....
Second Year—								
Pass	3	60	.....	98	38	99	5	.....
Honours	5	6	12	52	26	34	2	.....
Third Year—								
Pass	2	8	4	84	13	48	2	52
Honours	5	3	2	30	20	25	1	.....
Fourth Year—								
Pass	3	10	16	78	20	46	2	.....
Honours	3	2	3	28	11	12	1	.....
Totals—								
Pass	17	198	107	385	107	294	16	52
Honours	21	33	45	168	71	123	4	.....

The students in Victoria College were enrolled as follows:

——	Greek.	Latin.	Ancient History.	English.	German	French.	Orientals.	Ethics.
First Year—								
Pass	1	40	33	50	9	40	5	.....
Honours	3	10	12	22	10	17	.....	.....
Second Year—								
Pass	2	22	.....	48	14	40	2	.....
Honours	8	8	4	21	8	14	.....	.....
Third Year—								
Pass	.....	6	5	42	5	14	6	19
Honours	2	2	2	13	6	13	.....	6
Fourth Year—								
Pass	1	6	6	32	9	14	2	3
Honours	.....	.....	.....	10	7	7	.....	5
Totals—								
Pass	4	74	44	172	37	108	15	22
Honours	13	20	18	66	31	51	.....	11

The students in Trinity College were enrolled as follows:

——	Greek.	Latin.	Ancient History.	English.	German.	French.	Orientals.	Ethics.
First Year—								
Pass	2	10	6	15	3	12	2	.....
Honours	4	8	7	11	5	6	.....	.....
Second Year—								
Pass	4	7	.....	7	5	6	3	.....
Honours	.....	1	1	6	3	4	1	.....
Third Year—								
Pass	3	2	4	14	4	10	1	4
Honours	3	2	2	4	.....	3	.....	.....
Fourth Year—								
Pass	.....	1	2	7	4	5	1	4
Honours	.....	.....	.....	5	.....	1	.....	.....
Totals—								
Pass	9	20	12	43	16	33	7	8
Honours	7	11	10	26	8	14	1	.....

The students in St. Michael's College were enrolled as follows:

——	Greek.	Latin.	Ancient History.	English.	German.	French.	Philosophy.	Ethics.
First Year—								
Pass	18	70	6	70	15	68	.....	.....
Honours	.....	2	4	8	6	8	.....	.....
Second Year—								
Pass	6	30	.....	33	8	26	.....	.....
Honours	1	1	1	5	5	5	6	6
Third Year—								
Pass	1	7	.....	25	6	19	9	22
Honours	1	1	1	4	4	3	2	2
Fourth Year—								
Pass	.....	7	.....	14	5	12	5	13
Honours	.....	.....	.....	2	2	2	.....	.....
Totals—								
Pass	25	114	6	142	34	125	14	35
Honours	2	4	6	19	17	18	8	8

(2) Enrolment in University Subjects.

The following tables exhibit the numbers attending lectures in University subjects, together with the numbers of those taking the practical work in the laboratories:—

DEPARTMENT OF MATHEMATICS.

—	Pass.	Pass and Honours.	Honours.
Faculty of Arts—			
First Year	266	.....	43
Second Year	.....	.....	36
Third Year	.....	.....	14
Fourth Year	10	.....	8
Faculty of Applied Science—			
First Year	.....	70	.....
Second Year	.....	37	.....
Total	276	107	101

DEPARTMENT OF PHYSICS.

—	Pass.	Pass and Honours.	Honours.	Laboratory.
Faculty of Arts—				
First Year	86	.....	68	154
Second Year	20	.....	23	39
Third Year	11	.....	14	25
Fourth Year	1	.....	9	8
Graduate Students	.....	.....	10	9
Faculty of Medicine—				
First Year	.....	170	.....	170
Faculty of Forestry—				
First Year	4	.....	.....	4
Faculty of Household Science—				
First Year	34	.....	.....	34
Total	156	170	124	443

DEPARTMENT OF BIOLOGY.

—	Pass.	Pass and Honours.	Honours.	Laboratory.
Faculty of Arts—				
First Year	138	.....	41	179
Second Year	37	.....	8	45
Third Year	1	.....	10	11
Fourth Year	2	.....	6	8
Graduate Students	.....	.....	.....	2
Faculty of Medicine—				
First Year	.....	157	.....	157
Second Year	.....	92	.....	92
Faculty of Applied Science—				
First Year	.....	9	.....	9
Faculty of Forestry—				
Third Year	.....	2	.....	2
Total	178	260	65	505

DEPARTMENT OF BOTANY

—	Pass	Pass and Honours	Honours	Laboratory
Faculty of Arts—				
First Year	135	.....	43	168
Second Year	40	.....	2	42
Third Year	1	.....	5	6
Fourth Year	4	.....	5	9
Graduate Students	.....	.....	9	9
Faculty of Applied Science	.....	6	.....	6
Faculty of Forestry—				
First Year	.....	3	.....	3
Fourth Year	.....	1	.....	1
Ontario Veterinary College Students	.....	.....	.....	18
Total	180	10	64	262

DEPARTMENT OF CHEMISTRY.

——	Pass.	Pass and Honours.	Honours.	Laboratory.
Faculty of Arts—				
First Year	39	.....	66	103
Second Year	88	.....	10	69
Third Year	6	.....	5	6
Fourth Year	1	.....	3	2
Graduate Students	.....	.....	.....	6
Faculty of Medicine—				
First Year	.....	196	.....	165
Faculty of Applied Science—				
Second Year	.....	9	.....	.....
Third Year	.....	1	.....	.....
Faculty of Forestry—				
First Year	3	.....	.....	3
Ontario Veterinary College Students	19	.....	.....	19
Total	158	176	84	375

DEPARTMENT OF PHYSIOLOGY AND BIOCHEMISTRY.

——	Pass and Honours	Honours.	Laboratory.
Faculty of Arts—			
Second Year	33	1	33
Third Year	43	11	43
Fourth Year	4	4	4
Fourth Year (Food Chemistry)	28	1	28
Occasional Students	1	.....	1
Graduate Students	5	5	5
Faculty of Medicine—			
Second Year	99	.....	99
Third Year	73	.....	73
Faculty of Education—			
One Year course (Food Chemistry)	24	.....	24
Ontario Veterinary Students	29	.....	29
Counted twice	1	1	1
Total	340	21	340

DEPARTMENT OF GEOLOGY.

—	Pass.	Pass and Honours	Honours.	Laboratory.
Faculty of Arts—				
Second Year	77	.....	5	73
Third Year	4	.....	2	6
Fourth Year	1	.....	1	2
Faculty of Applied Science—				
Second Year	.....	4	.....	.....
Third Year	.....	12	.....	.....
Fourth Year	.....	13	.....	2
Faculty of Forestry—				
Second Year	.....	1	.....	1
Total	82	30	8	84

DEPARTMENT OF MINERALOGY.

—	Pass.	Pass and Honours.	Honours.	Laboratory.
Faculty of Arts—				
First Year	.....	.....	.....	.....
Second Year	68	.....	5	73
Third Year	5	.....	7	12
Fourth Year	1	.....	14	7
Faculty of Applied Science—				
First Year	.....	11	.....	11
Second Year	.....	11	.....	11
Third Year	.....	2	.....	2
Fourth Year	.....	2	.....	2
Faculty of Forestry—				
Second Year	.....	1	.....	1
Total	74	27	26	119

DEPARTMENT OF PHILOSOPHY.

—		History of Philosophy and Metaphysics.		Psychology.	Logic.	Ethics.	
		Pass.	Honours.	Honours.	Honours.	Pass.	Honours.
Second Year	.....	.....	4	6	.....	.....	7
Third Year	.....	23	9	8	7	82	3
Fourth Year	.....	34	10	9	9	17	5
Graduate Students	15	.....	.....	.....	.....	.....	.....
Total	15	57	23	23	16	99	15

DEPARTMENT OF POLITICAL SCIENCE.

——	Pass.	Honours.
Faculty of Arts—		
Department of Political Science—		
First Year	.....	17
Second Year	17	19
Third Year	85	16
Fourth Year	49	7
Graduate Students	.....	16
Department of Commerce and Finance—		
First Year	.....	13
Second Year	.....	4
Third Year	.....	2
Fourth Year	.....	2
Department of Modern History—		
Second Year	.....	6
Third Year	.....	8
Fourth Year	.....	3
Department of Philosophy—		
Third Year	.....	10
Department of Household Science—		
Fourth Year	21	.....
Faculty of Forestry	3	.....
Occasional Students	.....	5
Totals	175	130

DEPARTMENT OF HISTORY.

	Pass.	Honours.
First Year	40	39
Second Year	109	47
Third Year	169	38
Fourth Year	112	24
Total	430	148

DEPARTMENT OF ITALIAN AND SPANISH.

	Italian.		Spanish.		Phonetics.
	Pass.	Honours.	Pass.	Honours.	Honours.
First Year	18	20	45	53	.....
Second Year	17	21	11	4	34
Third Year	.....	6	.....	7	.....
Fourth Year	.....	8	.....	2	.....
Total	35	56	56	66	34

DEPARTMENT OF HOUSEHOLD SCIENCE.

	General Course.	Household Science Course.	Total.
Faculty of Arts—			
First Year	.....	34	34
Second Year	.....	33	33
Third Year	5	32	37
Fourth Year	7	21	28
Occasional Students	.....	.....	2
Faculty of Education—			
Household Science Course	.....	.....	26
General Course	.....	.....	134
Summer Session	.....	.....	20
	12	120	314

(3) Registration in Courses in the Faculty of Arts, 1917-1918.

Courses.	First Year.				Second Year.				Third Year.				Fourth Year.				Total.
	U. C.	V. C.	T. C.	St. M. C.	U. C.	V. C.	T. C.	St. M. C.	U. C.	V. C.	T. C.	St. M. C.	U. C.	V. C.	T. C.	St. M. C.	
General Course	100	34	10	67	47	20	7	25	52	19	11	21	48	18	6	14	499
General Course (Household Science)	18	12	1	.....	14	20	.....	1	16	12	.....	.....	10	9	.....	.....	113
Classics	4	3	1	.....	1	4	.....	1	1	3	2	1	.....	.....	1	.....	22
English and History (Classics)	4	2	3	.....	2	5	.....	.....	1	.....	1	1	2	.....	.....	.....	21
Orientals	.....	.....	.....	.....	3	.....	.....	.....	1	.....	.....	.....	1	.....	.....	.....	5
Moderns	19	8	3	7	17	7	2	5	14	4	.....	3	12	7	1	2	111
Eng. and Hist. (Moderns)	11	4	2	.....	10	5	1	.....	6	7	3	.....	9	3	4	.....	65
Modern History	5	2	1	1	2	4	1	.....	6	2	.....	.....	3	.....	.....	.....	27
Political Science	10	5	2	1	10	6	1	.....	15	1	.....	.....	7	1	.....	.....	59
Commerce and Finance	9	4	1	.....	4	.....	.....	.....	1	1	.....	.....	2	.....	.....	.....	22
Philosophy	.....	.....	.....	.....	4	.....	1	6	2	6	.....	2	4	5	.....	.....	30
Mathematics and Physics	19	1	1	1	7	1	1	.....	7	2	1	.....	12	3	1	.....	57
Natural and Physical Sciences	31	5	3	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	40
Physics	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2
Biology	.....	.....	.....	.....	.....	.....	.....	.....	2	2	.....	.....	4	.....	.....	.....	8
Geology and Mineralogy	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	1	.....	.....	.....	2
Chemistry and Mineralogy 1.	.....	.....	.....	.....	3	1	.....	.....	3	1	1	.....	.....	1	.....	.....	10
Biological and Phys. Sciences	.....	.....	.....	.....	1	2	.....	.....	1	.....	.....	.....	1	1	.....	.....	6
Physiological and Biochem. Scs.	.....	.....	.....	.....	3	.....	.....	.....	3	.....	1	1	.....	1	.....	.....	9
Household Science	.....	.....	.....	.....	1	.....	.....	.....	.....	2	2	.....	.....	1	.....	.....	6
Arts and Forestry	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2
Science for Teachers	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Total of courses taken	231	80	28	79	132	75	14	38	131	63	22	29	116	50	13	16	1,117
Total of students registered	229	75	28	79	132	74	14	38	131	63	22	29	116	50	13	16	

(4) Registration of Women Students.

The women students registered in University College took the following courses:

Courses.	First Year.	Second Year.	Third Year.	Fourth Year.
General	38	33	32	39
Classics	4	1	1	.....
English and History (Moderns)	14	9	6	9
English and History (Classics)	2	1	1	2
Moderns	18	16	14	11
Modern History	2	1	5	.....
Political Science	1	3	.....	.....
Household Science (General)	20	15	32	10
Natural Sciences	20	3	4	8
Commerce and Finance	1	.....	.....	.....
Totals	120	82	95	79

The women students registered in Victoria College took the following courses:

Courses.	First Year.	Second Year.	Third Year.	Fourth Year.
General	20	17	13	13
Moderns and English and History	9	12	9	8
Classics and English and History	1	4	1	.....
Modern History	1	4	2	.....
Mathematics and Physics	.....	.....	1	.....
Natural and Physical Sciences	.....	1	4	.....
Household Science	.....	.....	3	1
Household Science (General)	13	19	11	9
Philosophy	.....	.....	1	1
Political Science	1	1	.....	.....
Commerce and Finance	2	.....	.....	.....
Totals	47	58	45	32

The women students registered in Trinity College took the following courses:

Courses.	First Year.	Second Year.	Third Year.	Fourth Year.
General	6	2	7	6
Modern Languages	2	2	.....	1
English and History (Moderns)	.....	1	2	4
English and History (Classics)	.....	.....	1	.....
Modern History	1	1	.....	.....
Household Science	2	.....	2	.....
Mathematics and Physics	1	.....	1	1
Chemistry and Mineralogy I	.....	.....	1	.....
Physiological and Biochem. Scs	.....	.....	1	.....
Totals	12	6	15	12

The women students registered in St. Michael's College took the following courses:

Courses.	First Year.	Second Year.	Third Year.	Fourth Year.
General	16	5	10	8
Modern Languages	3	2	2	2
English and History (Moderns)	1	3	.....	.....
Classics	.....	.....	1	.....
English and History (Classics)	.....	.....	1	.....
Modern History	1	.....	.....	.....
Household Science (General)	.....	1	.....	.....
Totals	21	11	14	10

The women in the Faculty of Medicine were enrolled as follows:

First Year	20
Second Year	10
Third Year	8
Fourth Year	9
Special War Session	4
	51

The women in the Faculty of Applied Science and Engineering were enrolled as follows:

First Year	1
Second Year	1
	2

The women in the Faculty of Education took the following courses:

First Class Grade B Course	145
High School Assistants' Course	61
Household Science	26
	232

(5) Registration for Graduate Courses.

	M.A.	Ph.D.	Graduate
Department of Classics	1	....	2
" Oriental Languages	1	1	....
" English	3	1	....
" Romance Languages	2	1	....
" History	12	1	....
" Political Science	10	2	3
" Philosophy	4	5	3
" Mathematics	.....	1	....
" Physics	6	5	....
" Astronomy	1	....	....
" Chemistry	4	2	1
" Biochemistry	6	....	....
" Physiology	1	....	....
" Biology	.....	1	....
" Botany	3	6	....
" Anatomy	1	1	....
" Geology	1	....	....
	56	27	9
Miscellaneous	1	....	
Total	57	27	9

APPENDIX C.

Results of Examinations.

(1) Faculty of Arts.
(2) Faculty of Medicine.
(3) Faculty of Applied Science and Engineering.
(4) Faculty of Forestry.
(5) Faculty of Education.

RESULTS OF EXAMINATIONS IN APRIL, 1918.

(1) Faculty of Arts.

Senior Matriculation.

Courses.	University.	Univ. Coll.	Vic. Coll.	Trin. Coll.	St. M. Coll.	Totals.	Passed.	Granted standing on account of Mil. Service.	Nat'al. Ser.	Starred.	Failed.	Transfer'd.	Aegrotat.	Deferred.	Debarred.
General	....	26	7	3	25	61	11	.....	1	26	23	....	....	....	25
Supplementals	....	2	3	....	1	6	4	.....	..	2	....	....	....	....	....
House. Sc. (Gen. Course)	....	5	2	....	....	7	4	.....	..	2	1	1	....	....	....
Moderns	....	1	1	....	....	2	2	.....	..	..	....	....	....	....	....
Political Science	....	1	....	....	....	1	....	.....	..	1	....	1	....	....	1
Commerce and Finance	....	1	....	....	....	1	....	.....	..	1	....	1	....	....	1
Math. and Phys.	....	3	1	....	....	4	2	.....	..	2	....	2	....	....	2
Natural Science	....	5	1	....	1	7	1	.....	1	4	1	3	....	....	3
Totals	....	44	15	3	27	89	24	.....	2	38	25	8	....	....	32

First Year.

Courses.	University.	Univ. Coll.	Vic. Coll.	Trin. Coll.	St. M. Coll.	Totals.	Passed.	Granted standing on account of Mil. Service.	Nat'al. Ser.	Starred.	Failed.	Transfer'd.	Aegrotat.	Deferred.	Debarred.
General	....	61	23	4	33	121	46	1	6	45	23	....	....	....	21
Supplementals	....	9	6	2	8	25	22	.....	..	3	....	....	....	....	....
House. Sc. (Gen. Course)	....	10	10	1	....	21	13	.....	..	7	1	1	....	....	3
Classics	....	4	3	3	....	10	10	.....	..	..	....	1	....	....	....
Moderns	....	18	7	2	7	34	29	.....	..	5	....	5	2	2	3
Eng. and Hist. (Class.)	....	5	1	3	....	9	8	.....	..	1	....	4	....	....	....
Eng. and Hist. (Mod.)	....	12	3	2	....	17	17	.....	..	..	....	7	....	....	....
Modern History	....	6	3	1	1	11	11	.....	..	..	....	1	....	....	....
Political Science	....	9	4	2	1	16	11	.....	..	5	....	8	....	....	....
Commerce and Finance	....	7	3	1	....	11	6	.....	..	5	....	9	....	....	....
Math. and Phys.	....	16	....	1	1	18	14	.....	..	4	....	7	....	....	....
Natural Science	....	23	5	2	....	30	26	.....	..	4	....	4	1	....	....
Occasionals	20	4	1	2	....	27	20	.....	..	7	....	....	....	....	....
Teachers'	6	....	....	....	....	6	6	.....	..	..	....	....	....	....	....
Arts and Forestry	1	....	....	....	....	1	1	.....	..	..	....	....	....	....	....
Totals	27	184	69	26	51	357	240	1	6	86	24	47	3	2	27

Second Year.

Courses.	University.	Univ. Coll.	Vic. Coll.	Trin. Coll.	St. Michael's College	Totals.	Passed.	Granted standing on account of Military Service.	National Service.	Starred.	Failed.	Transferr'd.	Aegrotat.	Deferred.	Debarred.
General	..	40	20	5	21	86	17	2	3	32	32	..	1	..	16
Supplementals	..	12	9	1	5	27	15	.....	....	12	....	..	..	..	..
House. Science (Gen. Course)	..	13	17	....	1	31	17	.....	....	13	1	..	1	..	8
Classics	..	2	5	....	1	8	4	.....	....	4	....	..	2	2	2
Orientals	..	1	....	....	....	1	....	.....	....	1	....	..	..	1	1
Orientals (Greek)	..	1	....	....	....	1	....	.....	....	1	....	..	..	..	..
Moderns	..	18	7	2	5	32	21	.....	....	8	3	3	2	1	4
English and History (Cl.)	..	1	4	....	....	5	4	.....	....	1	....	1	..	..	..
English and History (Mod.)	..	8	5	1	....	14	13	.....	....	1	....	..	..	..	..
Modern History	..	1	4	1	....	6	5	.....	....	....	1	..	2	..	..
Political Science	..	11	7	1	....	19	13	.....	2	1	3	..	..	..	..
Commerce and Finance	..	3	....	....	....	3	3	.....	....	....	....	..	..	..	..
Philosophy	..	4	....	....	6	10	7	.....	....	3	....	..	..	1	2
Mathematics and Physics	..	7	1	1	....	9	3	.....	4	1	1	..	..	..	..
Physics	..	2	....	....	....	2	1	.....	....	1	....	..	1	..	..
Chemistry and Mineralogy	..	3	1	....	....	4	1	.....	3	....	....	..	..	..	..
Biological and Physical Scs.	..	1	2	....	....	3	1	.....	....	2	....	..	1	..	1
Physiol. and Biochem. Scs.	..	2	....	....	....	2	1	.....	....	1	....	..	..	..	..
Household Science	..	1	....	....	....	1	....	.....	....	1	....	..	..	..	..
Science (Teachers)	..	1	....	....	....	1	....	.....	....	1	....	..	..	..	..
Occasionals	21	3	1	1	....	26	25	.....	....	1	....	..	..	..	..
Teachers	23	....	....	....	....	23	19	.....	....	4	....	..	..	..	..
Totals	44	135	83	13	39	314	170	2	12	89	41	4	10	5	34

Third Year.

Courses.	University.	Univ. Coll.	Vic. Coll.	Trin. Coll.	St. Michael's College	Totals.	Passed.	Granted standing on account of Military Service.	National Service.	Starred.	Failed.	Transferred	Aegrotat.	Deferred.	Debarred.
General	..	48	19	10	21	98	60	2	1	33	2	..	1	..	22
Supplementals	..	10	4	....	3	17	14	.....	....	3	....	..	..	..	..
House. Science (Gen. Course)	..	16	7	....	....	25	19	.....	....	6	....	..	..	..	3
Classics	..	1	2	2	1	6	6	.....	....	....	....	..	..	..	..
Orientals	..	1	....	....	....	1	1	.....	....	....	....	..	..	..	..
Moderns	..	14	4	....	2	20	17	.....	1	2	....	1	1	..	1
English and History (Cl.)	..	1	....	1	1	3	3	.....	....	....	....	..	..	..	..
English and History (Mod.)	..	6	7	3	....	16	13	.....	....	3	....	..	3	..	..
Modern History	..	6	2	....	....	8	7	.....	....	....	1	..	..	..	..
Political Science	..	14	1	....	....	15	13	.....	....	2	....	..	1	1	2
Commerce and Finance	..	1	1	....	....	2	2	.....	....	....	....	..	..	..	..
Philosophy	..	2	6	....	2	10	5	.....	1	4	....	..	2	1	2
Mathematics and Physics	..	7	2	....	....	9	6	1	2	....	....	..	..	..	..
Biology	..	2	2	....	....	4	4	.....	....	....	....	..	..	..	..
Geology and Mineralogy	..	....	1	....	....	1	1	.....	....	....	....	..	..	..	..
Chemistry and Mineralogy(I)	..	3	1	1	....	5	1	.....	4	....	....	..	..	..	..
Biological and Physical Scs.	..	1	....	....	....	1	1	.....	....	....	....	..	..	..	..
Physiol. and Biochem. Scs.	..	4	1	1	1	7	7	.....	....	....	....	..	..	..	..
Household Science	..	....	3	2	....	5	5	.....	....	....	....	..	..	..	..
Occasionals	..	3	2	1	....	6	5	.....	....	1	....	..	..	..	..
Teachers	4	....	....	....	....	4	4	.....	....	....	....	..	..	..	..
Totals	4	140	67	21	31	263	194	3	9	54	3	1	7	2	30

Fourth Year.

Courses.	University.	Univ. Coll.	Vic. Coll.	Trin. Coll.	St. Michael's College.	Totals.	Passed.	Granted standing on acct. of Military Service.	National Service.	Starred.	Failed.	Aegrotat.	Deferred.	Pass Deg.
General	..	47	17	5	14	83	68	....	....	15	....	1	..	..
Supplementals	..	1	1	....	....	2	2	....	....	....	....	....	..	..
Household Science (Gen. C.)	..	10	9	1	....	20	18	....	....	2	....	....	..	..
Orientals (Greek)	..	1	....	....	....	1	1	....	....	....	....	....	..	..
Moderns	..	10	7	1	2	20	20	....	....	....	....	....	..	..
English and History (Clas.)	..	2	....	....	....	2	2	....	....	....	....	....	..	..
English and History (Mod.)	..	9	3	4	....	16	16	....	....	....	....	....	..	..
Modern History	..	3	....	....	....	3	3	....	....	....	....	....	..	..
Political Science	..	7	....	....	....	7	7	....	....	....	....	....	..	..
Commerce and Finance	..	2	....	....	....	2	2	....	....	....	....	....	..	..
Philosophy	..	4	5	....	....	9	8	....	1	....	....	....	..	..
Mathem. and Physics — Mathematics	..	6	3	....	....	9	7	....	1	....	1	....	..	..
Mathem. and Physics — Physics	..	6	....	1	....	7	7	....	....	....	....	....	..	..
Biology I	..	3	....	....	....	3	3	....	....	....	....	....	..	..
Biology II	..	1	....	....	....	1	1	....	....	....	....	....	..	..
Chem. and Mineralogy I.	..	1	....	....	....	1	1	....	....	....	....	....	..	..
Biol. and Phys. Sciences	..	1	1	....	....	2	2	....	....	....	....	....	..	..
Phys. and Biochem. Scs.	..	....	1	....	....	1	1	....	....	....	....	....	..	..
Household Science	..	....	1	....	....	1	1	....	....	....	....	....	..	..
Occasionals	..	3	4	1	1	9	9	....	....	....	....	....	..	..
Totals	..	117	52	13	17	199	179	....	2	17	1	1	..	..

(2) Faculty of Medicine.

——	Passed.	Granted standing on account of Military Service.	Starred.	Failed.
First Year	91	22	16	22
Second Year	62	15	20	3
Third Year	28	35	20	2
Fourth Year	35	8	18	2
Fifth Year	74	....	20	....

(3) Faculty of Applied Science.

—	Passed with Honours.	Passed.	Granted standing on account of Mil. Service.	Starred.	Failed.
First Year:					
Civil Engineering	2	2	.....	4	3
Mining Engineering	2	1	.....	2	.....
Mechanical Engineering	4	2	.....	6	2
Architecture	.....	.....	.....	1	.....
Analytical and Applied Chemistry	1	3	.....	5	.....
Chemical Engineering	3	.....	1	3	1
Electrical Engineering	4	1	3	3	2
Second Year:					
Civil Engineering	1	2	.....	2	1
Mining Engineering	.....	.....	.....	1	1
Mechanical Engineering	.....	2	.....	1	.....
Architecture	.....	.....	.....	1	.....
Analytical and Applied Chemistry	1	1	.....	.....	.....
Chemical Engineering	.....	6	.....	.....	.....
Electrical Engineering	4	1	1	5	.....
Third Year:					
Civil Engineering	2	2	1	4	.....
Mechanical Engineering	1	1	.....	1	.....
Architecture	2	.....	.....	.....	.....
Chemical Engineering	.....	.....	.....	1	.....
Electrical Engineering	1	3	.....	5	.....
Fourth Year:					
Civil Engineering	5	2	3	2	.....
Mining Engineering	.....	1	1	.....	.....
Mechanical Engineering	1	.....	.....	.....	.....
Chemical Engineering	1	1	.....	.....	.....
Electrical Engineering	7	1	.....	.....	.....

(4) Faculty of Forestry.

—	Passed.	Granted standing on account of Mil. Service or Farm Labour.	Honours Deferred.	Failed.
First Year	.....	3	.....	1
Second Year	1	.....	.....	.....
Third Year	.....	.....	.....	.....
Fourth Year	2	.....	2	.....

(5) Faculty of Education.

—	Passed.	Failed.
First-Class Grade B Course	164	.....
High School Assistants' Course	66	.....
*Specialists	28	.....
Household Science	25	.....
Bachelor of Pedagogy (passed in part)	1	.....
Doctor of Pedagogy	2	.....
Doctor of Pedagogy (passed in part)	17	.....
Number who failed in whole or part	.....	26

* Many of these are included among those who passed in the High School Assistants' Course.

APPENDIX D.

Geographical Distribution of Students.

The geographical distribution of students is as follows:

FACULTY OF ARTS.

	University of Toronto.	University College.	Victoria College.	Trinity College.	St. Michael's College.	Total
Ontario: (1) Province	21	308	178	59	78	644
(2) Toronto	11	286	71	16	80	464
Nova Scotia	1	6	1	.....	.....	8
New Brunswick	.....	2	.....	.....	1	3
Prince Edward Island	.....	2	.....	.....	.....	2
Quebec	3	2	1	1	1	8
Manitoba	4	.....	1	3	.....	8
Saskatchewan	8	6	11	.....	.....	25
Alberta	3	8	3	.....	.....	14
British Columbia	.....	4	.....	1	.....	5
Yukon Territory	.....	1	.....	.....	.....	1
United States	7	14	1	1	6	29
Elsewhere	6	11	16	.....	.....	33
Totals	64	650	283	81	165	1,244

SUMMARY.

	Faculty of Arts.	Graduate Studies.	Faculty of Medicine.	Faculty of Applied Science.	Faculty of Education.	Faculty of Forestry.	Department of Social Service.	Summer Session & Teachers' Classes.	Totals.
Ontario:									
(1) Province	644	34	314	94	286	3	102	11	1,488
(2) Toronto	464	39	179	66	47	5	115	35	950
Nova Scotia	8	1	.....	.....	.....	.....	4	.....	13
New Brunswick	3	3	1	.....	.....	.....	3	.....	10
Prince Edward Island	2	1	1	.....	.....	.....	.....	.....	4
Quebec	8	1	1	.....	4	1	2	.....	17
Manitoba	8	.....	1	1	2	.....	4	.....	16
Saskatchewan	25	3	8	1	10	.....	1	.....	48
Alberta	14	1	5	1	5	.....	.....	.....	26
British Columbia	5	1	8	1	2	.....	2	.....	19
Yukon	1	1	.....	.....	.....	.....	.....	.....	2
United States	29	3	3	.....	.....	1	2	.....	38
Elsewhere	33	5	4	2	2	.....	7	.....	53
Occasionals	.....	.....	131	2	.....	.....	.....	.....	133
Totals	1,244	93	656	166	358	10	242	46	2,817
Less duplicate registration									18
									2,799

The students from the Province of Ontario are distributed as follows:

County.	Faculty of Arts.	Graduate Courses.	Faculty of Medicine.	Faculty of Applied Science.	Faculty of Education.	Faculty of Forestry.	Department of Social Service.	Summer Session.	Totals.
Algoma	7	.....	6	1	.....	.....	4	.....	18
Brant	17	1	3	.....	6	1	1	.....	29
Bruce	14	1	5	3	11	.....	3	.....	37
Carleton	28	2	7	.....	1	.....	2	.....	40
Dufferin	5	.....	3	.....	3	.....	1	.....	12
Dundas	6	.....	2	.....	3	.....	.....	.....	11
Durham	10	1	3	.....	6	.....	3	.....	23
Elgin	12	.....	4	2	8	.....	2	.....	28
Essex	19	.....	16	5	5	.....	.....	.....	45
Frontenac	1	1	1	.....	.....	.....	3	.....	6
Glengarry	2	.....	2	.....	.....	.....	.....	.....	4
Grenville	3	.....	.....	.....	2	.....	1	1	7
Grey	20	2	15	1	11	.....	3	.....	52
Haldimand	7	.....	5	.....	3	.....	1	1	17
Haliburton	1	.....	.....	.....	.....	.....	.....	.....	1
Halton	11	2	5	1	10	.....	3	.....	32
Hastings	10	1	6	.....	5	.....	4	.....	26
Huron	24	.....	13	4	15	.....	4	1	61
Kenora	1	.....	.....	.....	.....	.....	.....	.....	1
Kent	10	.....	12	3	12	.....	4	1	42
Lambton	9	2	6	3	6	.....	2	.....	28
Lanark	16	.....	2	2	9	.....	1	.....	30
Leeds	17	.....	5	2	1	.....	.....	.....	25
Lennox and Addington	2	.....	3	1	1	.....	2	.....	9
Lincoln	12	3	6	2	4	.....	2	1	30
Manitoulin	1	.....	.....	.....	.....	.....	.....	.....	1
Middlesex	24	.....	7	8	18	.....	3	.....	60
Muskoka	3	.....	2	1	.....	.....	2	.....	8
Nipissing	7	.....	7	2	1	.....	.....	.....	17
Norfolk	6	.....	2	.....	5	.....	.....	.....	13
Northumberland	11	1	3	.....	3	.....	2	.....	20
Ontario	20	2	10	6	9	.....	3	1	51
Oxford	14	1	7	8	12	.....	3	.....	45
Parry Sound	.....	.....	.....	.....	.....	.....	1	.....	1
Peel	19	1	8	2	6	.....	.....	.....	36
Perth	23	1	11	8	17	1	4	1	66
Peterborough	20	2	5	.....	8	.....	5	.....	40
Prescott	2	.....	.....	.....	.....	.....	.....	.....	2
Prince Edward	5	1	2	.....	.....	.....	.....	.....	8
Rainy River	1	.....	1	.....	.....	.....	1	.....	3
Renfrew	9	.....	1	1	1	.....	1	1	14
Russell	.....	.....	1	.....	.....	.....	.....	.....	1
Simcoe	48	4	25	8	13	.....	9	.....	107
Stormont	7	.....	.....	.....	2	.....	.....	.....	9
Sudbury	2	.....	.....	.....	1	.....	.....	.....	3
Thunder Bay	1	.....	3	.....	2	.....	.....	.....	6
Temiskaming	2	.....	.....	.....	.....	.....	.....	.....	2
Victoria	10	1	1	.....	7	.....	3	.....	22
Waterloo	17	.....	10	2	8	.....	1	.....	38
Welland	14	.....	10	2	2	.....	3	1	32
Wellington	32	1	28	1	19	.....	6	.....	87
Wentworth	51	2	18	10	16	.....	4	.....	101
York	31	1	22	5	14	1	5	2	81
Toronto	464	39	179	65	47	5	115	35	949
Totals	1,108	73	493	159	333	8	217	46	2,437

APPENDIX E.

Publications by Members of the Staff.

Faculty of Arts.

Department of Biology.

Cragie, E. Horne, and Chase, W. H.—"Further Hydrographic Investigations in the Bay of Fundy." (Contributions to Canadian Biology.)

Huntsman, A. G.—"Concerning Some Ontario Crayfishes." (Ottawa Nat., Vol. 30, No. 10, 1917.)

"The Lampreys of Eastern Canada." (Ottawa Nat., Vol. 31, No. 2, 1917.)

"The Canadian Plaice." (Bull. Bio. Board of Canada, No. 1, 1917.)

"The Growth of the Scales in Fishes." (Trans. Roy. Can. Sust., Vol. XII, p. 1.)

"Growth of the Young Herring (so-called Sardines) of the Bay of Fundy." (Can. Fish Exped., 1914-15.)

"Biology of Atlantic Waters of Canada." (Can. Fish Exped., 1914-15.)

Walker, E. M.—"Notes on the Land Mollusca of De Grassi Point, Lake Simcoe, and other Ontario Localities." (The Ottawa Naturalist, June-July, 1917, pp. 40-45.)

"The Known Nymphs of the North American Species of Sympetrum." (Canadian Entomologist, XLIX, Dec., 1917, pp. 409-418, pts. 19, 20.)

Department of Botany.

Faull, J. H.—"Chondromyces Thaxteri, A New Myxobacterium," 2 plates. (Botanical Gazette, Vol. LXII, No. 3.)

"Fomes Officinalis (VIII), A Timber-Destroying Fungus," 8 plates. (Trans. Roy. Can. Inst., Vol. XI.)

"The Menace to our White Pine." (Canadian Forestry Journal, May and June, 1918.)

Cosens, A., and Sinclair, T. A.—"Aeriferous Tissue in Willow Galls." (Botanical Gazette, Vol. LXII, No. 3.)

Department of English.

Edgar, Pelham.—"Canadian Literature." (Cambridge History of English Literature, Vol. XIV.)

"Canadian Poetry." (Ward's English Poets—Vol. V.)

Department of Geology.

Coleman, A. P.—"Magmas and Sulphide Ores." (Economic Geology, Vol. XII, No. 5, Aug., 1917.)

"Wave Work as a Measure of Time: A Study of the Ontario Basin." (American Journal of Science, Nov., 1917.)

MacLean, A.—"Southeastern Saskatchewan." (Summary Report, Geo. Sur. Can. for 1916.)

Parks, W.A.—"Report on the Building and Ornamental Stones of Canada, Vol. V (British Columbia)." (Mines Branch, Department of Mines, Ottawa.)

Department of German.

Young, A. H.—"The Roll of Pupils of Upper Canada College, January, 1830, to June, 1916." (Kingston: Hanson, Crozier, and Edgar, 1917.)
"History of Trinity College."
"Bishop Strachan." (Trinity University Review, November and December, 1917, and May-June, 1918.)
"Education between 1763 and 1799." (The University of Toronto Monthly, March and other months, 1918.)

Department of Greek.

Carruthers, A., in collaboration with Robertson, J. C.—"Ontario High School Latin Book."
"Matriculation Latin, Cæsar Bellum Gallicum."
"Matriculation Latin, Virgil Æneid, Book I (lines 1-510)."

Department of History.

Kennedy, W. P. M.—"Historical Introduction to the Canadian Constitution." (Carswell & Co., London and Toronto, 1918), being Part I of Professor Lefroy's "Short Treatise on Canadian Constitutional Law."
"Canadian Constitutional Development as illustrated in Contemporary Documents, 1759-1915." (pp. VI. 700, Oxford Press, 1918.)
"Canada's Challenge to an Imperial Federated Parliament." (Maclean's Magazine, June, 1918, syndicated in *The London Daily Mail* and *The New York Sun*).
Sissons, C. B.—"Bilingual Schools in Canada." (J. M. Dent and Sons, 1917.)

Department of Italian and Spanish.

Buchanan, M. A.—"Calderon."
"Life is a Dream."
"The Prodigious Magician."
"The Mayor of Zalamea."
"Lope de Vega's The Star of Seville." (The Encyclopedia Americana.)
Shaw, J. E.—"Notice of Emilio Goggio: *Due Commedie Moderne.*" (Boston, Ginn & Co. in "Modern Language Notes." Vol. XXXII, No. 7.)
"Italy's Escape from the Triple Alliance." (The University Monthly, January and February, 1918.)

Department of Latin.

DeWitt, N. W.—"Lincoln and Gorgias Again." (Classical Journal, Chicago, Vol. XIII, No. 5, p. 373.)
"Mr. Elmore's Three Passages of Tacitus' Agricola." (Classical Journal, Chicago, pp. 373-4.)
"Virgil and Apocalyptic Literature." (Classical Journal, Chicago, Vol. XIII, No. 8, pp. 600-606.)
"Three More Notes on the Agricola." (Classical Journal, Chicago, Vol. XIII, No. 9, pp. 689-90.)

Department of Mathematics.

Beatty, S.—"Derivation of the Complementary Theorem from the Riemann—Roch Theorem." (American Journal of Mathematics, Vol. XXXIX, No. 3, July, 1917.)

Fields, J. C.—"Science and Industry." (Year Book of the Board of Trade of the City of Toronto.)

Department of Mineralogy.

Ledoux, A.—"Nouvelle méthode pour la détermination des indices de réfraction des liquides." (Compte-Rendus de l'Académie des Sciences, Paris, 1917.)

"The Crystallization of Parahopeite." (Mineralogical Magazine, 1917.)

Parsons, A. L.—"Recent Developments in the Mineral Industry of Western Ontario." (Ontario Bureau of Mines, XXVII Ann. Report.)

"Slate Islands, Lake Superior." (Ontario Bureau of Mines, XXVII Ann. Rep.).

Thomson, J. E.—"Dryden Gold Area." (XXVI. Ann. Rep. Ont. Bur. Mines.)

"Some Canadian Cerussite Crystals." (American Mineralogist, May Number, 1918.)

"A Pegmatitic Origin for Molybdenite Ores." (Vol. XIII, No. 4, Economic Geology, 1918.)

Walker, T. L.—"Mineralogy of the H. B. Mine, Salmo, B.C." (University Studies, 1918.)

Department of Oriental Languages.

McLaughlin, J. F.—"Turkey and the Revolt of the Arabs." (Acta Victoriana, Feb., 1917.)

"An Arab Proclamation." (The University Monthly, March, 1918.)

Department of Philosophy.

Brett, G. S.—"Democracy and Education." (The School, October, 1917.)

Hume, J. G.—"The Imagination." (Proceedings of the Ontario Educational Association, 1917.)

Pratt, E. J.—"Studies in Pauline Eschatology."

Department of Physics.

Chant, C. A.—"The Light-Curve of W. Virginis." (Annals of Harvard College Observatory, Vol. 80, Part 12.)

"The Variable Star W. Virginis." (Journal of the Royal Astronomical Society of Canada, Vol. 12, p. 47, Feb., 1918.)

Graham, T. S. H.—"Measurement of Radial Velocities of Stars by Means of the Objective Prism." (Journal of the Royal Astronomical Society of Canada, Vol. 12, p. 129, April, 1918.)

Satterly, John.—"The Radioactivity of the Natural Gases of Canada." (Royal Trans. Society of Canada.)

Satterly, John, and Elworthy, R. T.—"The Mineral Springs of Canada, Part I, The Radioactivity of some Canadian Mineral Springs." (Bulletin No. 16, Department of Mines, Mines Branch, Ottawa.)

Department of Physiology.

Hartman, Frank A.—"Adrenalin Vasodilator Mechanisms in the Cat at Different Ages." (American Journal of Physiology, Vol. XLV. Proceedings.)

"Location of Adrenalin Vasodilator Mechanisms." (Journal of Pharmacology and Experimental Therapeutics, 1918.)

"Adrenalin Vasodilator Mechanisms." (Endocrinology, Vol. II.)

Hartman, Frank A, and Fraser, Lois McPhedran.—"The Mechanism for Vasodilatation from Adrenalin." (American Journal of Physiology, XLIV, 353.)

Hartman, Frank A., and Kilborn, Leslie G.—"Adrenalin Vasodilator Mechanisms in the Cat at different Ages." (American Journal of Physiology, XLV, 111.)

Hartman, Frank A., Kilborn, Leslie G., and Fraser, Lois.—"Location of Adrenalin Vasodilator Mechanisms." (American Journal of Physiology, June Number. 1918.)

Department of Political Economy.

Cudmore, S. A.—"War Prices and War Thrift: An Analysis of the Purchasing Power of the Dollar." (Canadian Magazine, January, 1918.)

Falconbridge, John D.—"The Letter and the Spirit of International Law." (University Monthly, January, 1916.)

"Limitation of Actions for Redemption, 36 Dominion Law Reports, p. 15." (53 Canada Law Journal, p. 344, Oct., 1917.)

"Legal Mortgages in Equity." (54 Canada Law Journal, p. 1, January, 1918.)

Jackman, W. T.—"Le problème des chemins de fer du Canada." (Bulletin France-Amérique, Paris, Octobre, 1917.)

"The Need of an Inventory of Canada's Industrial Organization." (*Monetary Times,* Jan. 18, 1918.)

"The Government and the Canadian Northern Railway." (The University Monthly, May, 1918.)

"The Government and the Canadian Railways." (*The Monetary Times,* May 10, 17 and 24, 1918.)

MacIver, R. M.—"Social Backgrounds in Recent English Literature." (University Magazine, April, 1918.)

Faculty of Applied Science.

Department of Electrical Engineering.

Price, H. W.—"Helical Springs in Torsion." (American Machinist, October 18, 1917, p. 668.)

Department of Mechanical Engineering.

Billings, J. H.—"Errors in Measuring Thread Pitch Diameters with Wires." (American Machinist, December 20, 1917.)

"Proportioning Machine Parts subjected to Combined Bending and Torsion." (American Machinist.)

Faculty of Medicine.

Department of Anatomy.

McMurrich, J. Playfair.—"The Winter Plankton in the Neighborhood of St. Andrews, 1914-1915." (Contributions to Canadian Biology, 1915-16. Ottawa, 1917.)

"Quackery, its Etiology and Treatment." (Chicago, 1917.)

"Fifty Years of Canadian Zoology." (Trans. Royal Society of Canada. Ser. 3, Vol. XI, 1917.)

"Notes on some Crustacean Forms Occurring in the Plankton of Passamaquoddy Bay." (Trans. Royal Society of Canada. Ser. 3, Vol. XI, 1917.)

"Review of Professor D'Arcy Thompson's 'Growth and Form.'" (Science, N.S. Vol. XLVI., 1917.)

Watt, J. C.—"The Re-Education of Wounded Soldiers at the Hart House, Toronto." (Toronto *Sunday World,* October 14th, 1917.)

"Anatomy of a Seven Months Human Fœtus Exhibiting Bilateral Absence of the Ulna, Accompanied by Monodactyly (and also Diaphragmatic Hernia)." (American Journal of Anatomy, Vol. 22, No. 3, November, 1917.)

Department of Hygiene.

Fitzgerald, J. G.—"A case of Generalized Vaccinia." (The Public Health Journal, March, 1918.)

Fitzgerald, J. G., and Robertson, D. E.—"Report of an Outbreak of Diphtheric Wound Infection among Returned Soldiers." (The Journal of the American Medical Association, Sept. 8, 1917, Vol. LXIX, pp. 791-793.)

Fitzgerald, J. G., and McCullough, J. W. S.—"Sanitation in Some Canadian Barracks and Camps." (The American Journal of Public Health, Boston, Mass., Vol. 7, No. 8.)

"A Plan for Instruction in Hygiene, Preliminary Medical Inspection of Students, and Free Dispensary or Hospital Treatment in Canadian Universities." (The Public Health Journal, Vol. IX., No. XI., November, 1917.)

Defries, R. D.—"The Isolation and Identification of the Diplococcus Intracellularis Meningitidis." (The Public Health Journal, December, 1917.)

Department of Medicine.

Bates, Gordon.—"Galyl in the Treatment of Syphilis." (Canadian Journal of Medicine and Surgery, December, 1916.)

"The Control of Venereal Diseases." (Social Hygiene, Vol. 3, No. 4, October, 1917.)

"Social Aspects of the Venereal Disease Problem." (The Public Health Journal, November, 1917.)

"The Military Aspect." (The Public Health Journal, February, 1918.)

"The Relation of Alcohol to the Acquisition of Venereal Disease." (The Public Health Journal, June, 1918.)

Elliott, Jabez H.—"The Effects of Poisonous Gases as Observed in Returning Soldiers." (International Journal of Surgery, December, 1916.)

"Notes on the Differential Diagnosis of Pulmonary Tuberculosis." (The Canadian Practitioner and Review, 1917. With Dr. Charles Sheard, Jr.)

"Heliotherapy in Abdominal Tuberculosis." (Reprinted from "The Transactions of the American Climatological and Clinical Association." 1917.)

"Lessons from Canada's War Experiences with Tuberculosis." (An address delivered before the thirteenth annual meeting of the National Association for Study and Prevention of Tuberculosis. Cincinnati, Ohio. May 10th, 1917.)

"Tuberculosis in the Canadian Forces." (An address given at the seventeenth annual meeting of the Canadian Association for the Prevention of Tuberculosis. Ottawa, September 26th, 1917.)

"Tuberculosis in the Canadian Army." (An address given before the New England Conference of the National Association for the Study and Prevention of Tuberculosis. Rutland, Vermont. October 4th, 1917.)

"The Work of Military Convalescent Hospitals." (An address given before the Aesculapian Club, Boston, Mass. Jan. 12th, 1918.)

"Article on Toronto." (Buck's Reference Hand Book of the Medical Sciences. 1918.)

Ferguson, J.—"False Systems of Healing: No. 1, Christian Science." (Canada Lancet, July, 1917.)

"False Systems of Healing: No. 2, Osteopathy." (Canada Lancet, August, 1917.)

"Reply to Judge Smith's Defence of Christian Science Healing." (Canada Lancet, September, 1917.)

"False Systems of Healing: No. 3, Chiropractic." (Canada Lancet, October, 1917.)

"Blood Pressure in its Practical Aspects." (Canada Lancet, December, 1917.)

"Criticism of Judge Hodgin's Report." (Canada Lancet, May, 1918.)

"Women as Insurance Risks." (Medical Insurance and Health Conservation, May, 1918.)

"Criticism of Judge Hodgin's Report." (Canada Lancet, June, 1918.)

Loudon, Julian D.—"Cyclic Vomiting in Relation to Acid Intoxication." (The Canadian Medical Association Journal, December, 1917.)

McPhedran, A.—"Diagnosis of Tumours in the Upper Zone of the Abdomen." (The Canadian Medical Association Journal, May, 1917.)

"Symposium on Suppurative Conditions in the Lower Respiratory Tract.—Medical Aspects." (The Canadian Medical Association Journal, November, 1917.)

Parfitt, C. D.—"The Sanatorium Physician and the X-Ray." (Bulletin of the Medical Officers Tuberculosis Association of the Military Hospitals Commission, October, 1917.)

"The Tuberculosis and X-Ray Literature." (Bulletin of the Medical Officers' Tuberculosis Association of the Military Hospitals Commission, November, 1917.)

"Canada's War Problems in Relation to Tuberculosis." (Transactions of the Michigan Anti-tuberculosis Association, 1917.)

Sheard, Chas., Jr.—"Osteitis Deformans." (The Canadian Practitioner and Review.)

Sheard, Chas., Jr., and Elliott, J. H.—"Notes on the Differential Diagnosis of Pulmonary Tuberculosis." (The Canadian Practitioner and Review.)

Tovell, H. M.—"Radiographic Studies of Lobar Pneumonia in Children." (Journal of the Canadian Medical Association.)

Department of Medical Research.

Detweiler, H. K.—"On the Modification in the Strength of the Bordet-Wassermann Test During the Treatment of Syphilis." (Canadian Medical Association Journal. January, 1918.)

"The Technic of the Bordet-Wassermann Reaction." (American Journal of Syphilis, January, 1918, Vol. II, No. 1.)

Detweiler, H. K., and Maitland, H. B.—"The Localization of Streptococcus Viridans." (Journal of Experimental Medicine, January 1st, 1918, Vol. XXVII, No. 1, pp. 37-47.)

Graham, R. R., and Detweiler, H. K.—"Anthrax: A Case of B. Anthracis Septicemia with Recovery." (Journal of the American Medical Association, Vol. 70, No. 10, March 9, 1918.)

Department of Obstetrics and Gynæcology.

Hendrick, A. C.—"On Cancer of the Breast." (The MacMillan Company of Canada, Limited.)

Watson, B. P.—"Analysis of Clinical Types of Puerperal Fever. With Special Reference to Prognosis and Treatment."

Department of Oto-Laryngology.

Boyd, Edmund, and Gallie, W. E.—"Repair of Nose by Transferred Flap Operation with Included Bone-graft." (Canadian Medical Association Journal, March, 1918.)

Department of Pathological Chemistry.

Cotton, J. H.—"Anæsthesia from Commercial Ether-Administration and What It is Due to." (The Canadian Medical Journal, June, 1918.)

Campbell, W. R.—"Observations on Acute Mercuric Chloride Poisoning." (Archives of Internal Medicine, 1917, XX, p. 919.)

Hunter, A., and Campbell, W. R.—"The Probable Accuracy, in Whole Blood and Plasma, of Colorimetric Determinations of Creatinine and Creatine." (Journal of Biological Chemistry. 1917, XXXII, p. 195.)

Hunter, A., and Campbell, W. R.—"The Amount and the Distribution of Creatinine and Creatine in Normal Human Blood." (Journal of Biological Chemistry, 1918, XXXIII, p. 169.)

Hunter, A., and Campbell, W. R.—"The Placental Transmission of Creatinine and Creatine." (Journal of Biological Chemistry, 1918, XXXIV, p. 1).

Department of Pediatrics.

Brown, Alan.—"Feeding and Care of Premature Infants." (Archives of Pediatrics, New York.)
"Deficiency Diseases in Children." (Journal Canadian Medical Association.)
"Infant and Child Welfare Work in the Dominion." (Journal Canadian Medical Association.)
"Protein Milk in Infant Feeding." (Journal Canadian Medical Association.)
"Auto Serum Treatment of Chorea." (Journal Canadian Medical Association.)
"Results of the Follow-up System and the Ultimate Fate of 600 New Born Infants." (Journal Canadian Medical Association.)

The following articles have been written for Prof. Isaac Abt, of Chicago, for the new system of Diseases of Children, published by W. B. Saunders.
"Growth and Peculiarities of Thorax in Children."
"Practical Significance of Measurements of Thorax in the Newborn."
"Growth of the Thorax in Older Children."
"Breathing of Children: Bronchi and Lungs." (W. B. Saunders, Chicago.)
"Anatomical Peculiarities of the Lungs."
"Microscopic Appearance of the Lungs."
"Volume of the Lungs."
"Weight of the Lungs."
"Acute and Chronic Bronchitis."
"Atelectasis."
"Asthma."
"Emphysema." (W. B. Saunders, Chicago.)

Department of Surgery.

Hair, Chas. H.—"The Importance of Renal Functional Tests in Surgery."
Hay, S. M.—"Some Points in the Technique of Gastro-intestinal Operations." (Canadian Medical Quarterly.)
Gallie, W. E.—"The Use of Boiled Bone in Surgery." (Journal of the American Orthopædic Association, 1918.)
Gallie, W. E., and Robertson, D. E.—"The Transplantation of Bone." (Journal of the American Medical Association, 1918.)
Starr, F. N. G.—"The Radical Cure of Inguinal Hernia." (Can. Med. Ass. Journal, Sept., 1917.)
"Hypernephroma in the Folds of the Falciform Ligament of the Liver." (Amer. Surgical Assn., 1917.)

Faculty of Forestry.

Fernow, B. E.—"Axton Plantations." (Journal of Forestry, XVI, 1917, No. 8.)
"Forestry and the War." (Journal of Forestry, XVI, 1918, No. 2.)
Howe, C. D.—"Forest Regeneration on Certain Cut-over Pulpwood Lands in Quebec." (Ninth Annual Report Commission of Conservation, Ottawa, 1918.)

Faculty of Education.

"The School."—A magazine devoted to elementary and secondary education in Canada, published by the members of the Staff of the Faculty of Education.

Jones, G. M.—"The Development of the Imperial Conference." (16 page pamphlet.)

Sandiford, P.—"Comparative Education: Studies of the Educational Systems of Six Modern Countries." (J. M. Dent & Sons, 1918.)

SUPERINTENDENT'S REPORT

Buildings.

With the exception of absolute essentials the expenditure on buildings has been kept to the lowest limit.

Fifteen University buildings, together with Hart House, Wycliffe College, Burwash Hall, and Burwash Residences, have been occupied wholly or in part by the Royal Air Force, Canadian Army Medical Corps, Vocational Training of Soldiers, School of Therapy, Base Hospital Supply Association, Secours National and other war organizations.

The Invalid Soldiers' Commission has, with the permission of the Board of Governors, converted the old museum in the Mining Building into commodious quarters for the School of Therapy.

I am taking up with the Imperial Munitions Board the question of restoration of the property of the University after it is vacated by the Royal Air Force.

Grounds.

Owing to the grounds being largely used by the Royal Air Force it has been impossible to keep them in any state of repair. Some alterations were, however, made in the roadways which tend to a general improvement, and a beginning has been made in the grading of the ravine south of Hart House in an endeavour to assimilate it with the part north of the Library.

An extensive report on the grounds, made by Mr. Fleming, of Buffalo, has at last been completed, and has been accepted by the Board of Governors in principle.

Domestic Telephones.

This matter was considered by a Committee of the Board in all its aspects, and while no definite action was recommended, owing to the financial stringency, the general scheme was approved.

The Massey estate has installed the Automatic Telephone System for Hart House, which I hope may become the nucleus of a general scheme.

Clocks and Bells.

Professor Price, of the Department of Electrical Engineering, has been working for the past year on a system of clocks and time bells for the whole of the University Buildings. Progress has been made in this by the expenditure of certain moneys obtained by the disposal of waste material and the sale of disused boilers, pumps, etc.

Use of Laboratories.

No definite action in reference to the use of the scientific laboratories by persons not connected with the University has been taken.

As this question often gives rise to misunderstandings, it would be advisable that some general rules of procedure should be adopted.

Superannuation of Employees.

A report on this subject has recently been placed before the Board of Governors with the object of providing for those employees who have served the Board faithfully, and who are compelled to retire owing to sickness or old age.

Central Heating Plant.

The increased cost of heating and lighting during the past year was not unexpected. The great increase in the cost of fuel, the doubling of the cost of many materials used in the maintenance and repairs of the system, and an unusually long and severe winter, increased the cost from 21.29 cents to 43.93 cents per square foot of radiation.

As an example of the great increase, due principally to the shortage of labour, in 1915-16 the cost of delivery of coal from the tracks to the heating plant was 33 cents per ton, while in 1917-18 this had risen to $1.05.

No progress has been made in obtaining storage accommodation for our coal supply, and this with the question of motor haulage of coal should receive attention.

The comparative tables for the year 1916-17 and 1917-18 are appended:—

POWER HOUSE.

	1916–17	1917–18
Maximum daily consumption	73 tons	72 tons
Maximum weekly consumption	399 "	440 "
Average daily consumption, Sept. 25th to Oct. 31st	16.1 "	16.9 "
November	23.9 "	33.2 "
December	41.2 "	52.0 "
January	46.4 "	56.9 "
February	35.0 "	51.6 "
March	35.0 "	33.2 "
April	25.8 "	28.5 "
May	10.3 "	11.0 "
Total consumption	7199.29	8575.095
Cost	$29,391.38	$77,476.81
Load in square feet of radiation	207,114	210,268

TEMPERATURES.

	1916–17	1917–18
October	49.5 3.00 above	44.6 2.0 below
November	37.6 1.60 "	34.6 1.5 "
December	26.9 .80 "	19.5 6.6 "
January	22.6 1.70 "	13.2 8.6 "
February	17.2 5.00 below	21.1 1.4 "
March	32.1 3.40 above	33.6 4.9 above
April	41.1 .10 below	43.6 2.5 "
May	54.3 1.90 above	57.1 4.7 "
Yearly average	.91 above	.10 below
Total cost of operation	$44,110.73	$92,367.09
Cost per square foot of radiation	21.298	43.933

1916–17. Buildings were closed from February 14th to March 5th.

1917–18. Convocation Hall was temporarily closed from February 7th to April 2nd. The Museum was temporarily closed from February 2nd to March 18th. The buildings were closed by request of the Fuel Controller February 9th, 10th and 11th.

Buildings.	1916–17		1917–18		1916–17		1917–18	
	Square ft. of radiation in buildings.	Percentage charge.	Square ft. of radiation in buildings.	Percentage charge.	Light.	Heat.	Light.	Heat.
					$ c.	$ c.	$ c.	$ c.
Main	12,952	7,930	12,952	8,619	530 88	2,938 40	390 00	7,372 49
Gymnasium	.....	.....	.....	.....	81 16	.....	65 35	.....
Hart House	12,000	4,988	15,329	5,424	177 65	1,848 27	352 58	4,639 56
Library	10,865	4,751	10,865	4,384	91 10	1,622 95	68 52	3,612 47
Univ. Press	.....	.....	.....	.....	300 00	92 50	300 00	92 50
Stu. Bk. Dept.	.....	.....	.....	.....	2 10	45 00	2 10	45 00
Medical	7,288	4,790	7,328	3,992	425 68	1,774 90	391 92	3,414 66
Biological	8,271	3,573	8,271	3,252	122 28	1,323 95	200 74	2,781 69
Engineering	9,418	3,602	9,418	3,953	325 28	1,334 70	391 26	3,381 30
Electrical	.....	.....	.....	.....	678 68	.....	642 42	.....
Thermodynamics	5,934	1,189	5,416	2,366	98 34	440 58	76 14	2,023 82
Observatory	674	320	674	299	6 05	118 57	25 89	255 76
Mining	13,721	7,202	13,881	6,840	718 58	2,668 65	629 88	5,850 78
Furnace	.....	.....	.....	.....	99 00	.....	34 86	.....
Milling	.....	.....	.....	.....	29 40	.....	37 40	.....
Chemical	6,635	3,261	6,635	3,207	100 40	1,208 34	102 54	2,743 19
Physics	19,648	7,666	19,648	6,864	679 20	2,840 58	517 58	5,871 30
Convocation	6,689	2,928	6,689	2,506	156 32	1,084 95	37 60	2,143 57
Men's Res	9,336	5,066	9,336	5,717	505 70	1,877 17	363 24	4,890 19
No. 4 Queen's Pk	.....	.....	.....	.....	61 78	.....	81 02	.....
No. 184 College St	.....	.....	.....	.....	21 40	.....	29 26	.....
Univ. Col. Wom. Un	.....	.....	.....	.....	13 21	.....	28 47	.....
Household Science	10,137	5,351	10,137	5,448	146 72	1,982 77	140 88	4,660 09
Museum	17,183	6,598	17,183	5,270	108 86	2,444 84	100 36	4,507 83
Social Service	.....	.....	.....	.....	8 52	.....	6 66	.....
Grounds	.....	.....	.....	.....	250 00	.....	250 00	.....
Wycliffe Coll	12,371	7,009	12,371	8,018	194 40	2,597 13	312 20	6,858 41
Victoria Coll	9,028	4,393	9,028	3,822	121 50	1,627 79	130 92	3,269 25
Victoria Coll. Lib	4,021	1,762	4,021	1,613	9 68	652 90	28 62	1,379 72
Annesley Hall	4,274	2,755	4,274	2,938	142 04	1,020 85	114 98	2,513 10
Burwash Hall	8,234	5,272	8,377	6,134	387 18	1,953 50	430 06	5,246 88
Burwash D. Hall	.....	.....	.....	.....	234 36	.....	325 82	.....
Knox College	18,435	9,594	18,435	9,334	229 00	3,554 99	219 80	7,984 08
Totals	207,114	100,000	210,268	100,000	7,056 45	37,054 28	6,829 45	85,537 64

October 15th, 1918.

AUDITOR'S REPORT.

TORONTO, 23rd October, 1918.

To the Governors of the University of Toronto:

GENTLEMEN,—Herewith I present the Financial Statement of the University for the fiscal year ending 30th June, 1918, and beg to report that all the transactions of the year upon Revenue Account and Capital Account have been duly audited and approved of.

Yours faithfully,

(Signed) G. T. CLARKSON,

Auditor.

FINANCIAL STATEMENT.

APPENDIX I.

BALANCE SHEET, 30TH JUNE, 1918.

Funds.

General Endowments Fund	Schedule 1	$5,867,579 00	
Specific Endowment Funds	" 2	133,885 02	
Retirement Fund	" 3	25,433 04	
Trust Funds	" 4*a*	84,815 91	
Equipment Funds	" 4*b*	58,186 47	
Annuity Debentures	" 4*c*	957,380 50	
Contingent Funds	" 5*a*	78,504 64	
Fees paid in advance		306 00	
			$7,206,090 58

Assets.

Site Lands, Buildings and Contents	Schedule 6	$5,548,582 81	
Unproductive Lands	" 7	59,750 00	
Leased Properties	" 8	644,803 24	
Investments, Cash and Accounts Receivable	" 9	701,951 73	
Royal Ontario Museum Investment		251,002 80	
			$7,206,090 58

SCHEDULE 1.

General Endowments Fund.

Additions for 1917-18:			
Convocation Hall Advance:			
Restoration from proceeds of Wild Lands sales, twelfth instalment		$2,179 36	
Annuity Debentures:			
Portion of 1917-18 instalments reducing principal:			
Ninth instalment, issue of July, 1909	$7,200 57		
Seventh instalment, issue of January, 1911	1,734 00		
Seventh instalment, issue of January, 1911	4,001 00		
Third instalment, issue of April, 1915	1,121 80		
		$14,057 37	
Central Power Plant:			
Repayment during the year from Revenue Account (seventh instalment)		20,208 00	
Increased capitalization of Lots 12, 13 and 14 University Park, to place upon basis of 40 cents per superficial foot and instalments of purchase of buildings thereon from Beatty Estate (Schedule 8)		11,914 89	
Education Building Annex:			
Expenditure during year upon building	$6,698 63		
Furnishings, etc.	1,775 91		
		8,474 54	
Building No. 8 Queen's Park, third of ten instalments paid on purchase		750 00	
Building No. 184 College Street, second of ten instalments paid on purchase		500 00	
Connaught Laboratories, entry to list account in Schedule 6		1 00	
Library proper:			
Additions for 1917-18, less depreciation		573 10	
			$58,658 26
Fund of 30th June, 1917			5,808,920 74
Fund of 30th June, 1918			$5,867,579 00

SCHEDULE 2.

Specific Endowment Funds (Scholarships, Prizes, Etc.).

Blake Matriculation	$30,108 72	
Mackenzie Memorial	18,584 60	
McCharles Bequest	11,722 59	
James H. Richardson Research Fellowship	10,000 00	
Starr Bequest	6,102 46	
Pearson Kirkman Marfleet Lectureship	5,900 00	
George Brown, Medical Science	5,391 72	
Young Memorial	4,068 26	
Blake, Science and Moderns	3,750 00	
Fulton Bequest	3,351 30	
George A. Peters Scholarship	2,900 00	
Mary Mulock, Classics	2,838 74	
Gibson, Matriculation	2,705 00	
A. A. A. S. Scholarship, Physics	2,350 00	
All Souls Historical Essay Prize	2,100 00	
John Macdonald, Philosophy	2,080 00	
Moss, Classics	2,000 00	
William Mulock, Classics and Mathematics	2,000 00	
Daniel Wilson, Natural Science	2,000 00	
Sundry Graduate Fellowships	1,625 00	
Bankers', Political Science	1,200 00	
George Brown, Modern Languages	1,128 34	
Balmer, Science	1,090 00	
G. R. R. Cockburn, Greek	1,050 00	
Quebec Bonne Entente Prize	1,050 00	
Porter Scholarship, University Schools	1,027 50	
William Ramsay, Political Economy	1,009 42	
Julius Rossin, German	1,000 00	
Prince of Wales, General Proficiency	950 00	
Anna Howe Reeve Prize	625 00	
Chappell Prize	516 35	
Flavelle Travelling Fellowship	500 00	
Lyle Medal	370 02	
Squair French Prose Prize	260 00	
R. A. Reeve Scholarship	250 00	
Boiler Inspection and Insurance Company Scholarship	130 00	
Board of Trade, Commerce and Finance	100 00	
Reading Camp Association Prize	50 00	
Ledger balances on 30 June, 1918		$133,885 02
Return of 30 June, 1917	$129,520 50	
Interest written to endowments	3,760 52	
Income from bonds, and other receipts during year	6,728 50	
	$140,009 52	
Scholarship expenditures	6,124 50	
Return of 30 June, 1918		$133,885 02

SCHEDULE 3.

Retirement Fund, Beneficiaries, 30 June, 1918.

W. Lash Miller	$8,134 04	
T. L. Walker	6,996 33	
W. A. Parks	3,278 58	
J. W. Bain	2,615 33	
H. W. Price	1,986 47	
E. M. Walker	1,595 46	
J. Christie	826 83	
		$25,433 04

Retirement Fund, Beneficiaries, 30 June, 1918.—Continued.

Fund of 30 June, 1917		$34,964 00	
Contributions 1917-18		2,001 24	
Interest		749 73	
Interest from War Loan Bonds		632 50	
		$38,347 47	
Withdrawals:			
W. H. Ellis	$4,928 44		
A. P. Coleman	4,924 25		
J. C. Fields	3,061 74		
		12,914 43	
Return of 30 June, 1918			$25,433 04

SCHEDULE 4*a*.

Trust Funds.

King Alfred Millenary Fund (Library)	$11,566 63	
Phillips Stewart Bequest (Library)	1,602 48	
John Squair French Library Fund	1,134 50	
Alexander Edwin Hamilton Library Fund	840 00	
University Studies	3,692 61	
E. C. Walker Bequest (Residences)	26,787 71	
Fulford Estate Donation (Base Hospital)	1,831 72	
Massey Treble Bequest, Household Science	4,750 00	
Mary A. Simpson Bequest (not allocated)	1,379 31	
Medical Research Fund	19,522 45	
Dental Research Fund	1,000 00	
Experimental Laboratories Research Fund	1,000 00	
Ontario Archæology Special Fund	485 00	
McCormick Fund, Social Service Department	2,000 00	
Microscopes Fund, Pathology	2,400 00	
Special Investigation Fund, Pathology	1,317 50	
John Langton Memorial	30 00	
University Schools Memorial	411 00	
Sundry Deposits:		
Men's Residences	225 00	
Women's Residences	770 00	
Keys	70 00	
R. J. Hamilton	2,000 00	
		$84,815 91
Return of 30 June, 1917	$93,436 09	
Interest appropriations	1,768 17	
Receipts:		
Massey Treble Bequest	4,750 00	
A. E. Hamilton Library Fund	40 00	
University Studies	372 78	
Microscopes Fund, Pathological Department	1,080 00	
Special Investigations Fund, Pathology	2,000 00	
Dental Research Fund	1,000 00	
University Schools Memorial	411 00	
Men's Residence Deposits	15 00	
Women's Residence Deposits	395 00	
Summer Session Deposits	45 00	
Key deposits	55 00	
		$105,368 04
Expenditures:		
Phillips Stewart Bequest	$35 55	
University Studies	11 00	
Medical Research Fund	1,067 50	
Experimental Laboratories Research Fund	1,000 00	
Investigations Fund, Pathology	682 50	
Fulford Estate Donation	16,657 50	
Men's Residence Deposits	258 08	
Women's Residence Deposits	265 00	

Trust Funds.—Continued.

Summer Session Deposits	505 00	
Key Deposits	70 00	
		20,552 13
Return of 30 June, 1918		$84,815 91

SCHEDULE 4*b*.

Equipment Funds.

University Press Surplus Account:		
Balance of 30 June, 1917	$5,388 73	
Net addition for year 1917-18 as per Appendix IV	3,316 90	
Balance on 30 June, 1918		$8,705 63
Connaught and Antitoxin Laboratories:		
Balance on 30 June, 1917, of Antitoxin Laboratory Surplus Account	$21,639 62	
Net addition for year 1917-18 as per Appendix V after creation of Research Fund	2,894 27	
	$24,533 89	
Connaught Laboratories Research Fund as per Appendix V.	24,183 92	
Balance on 30 June, 1918		48,717 81
Convocation Hall Organ Fund:		
Balance on 30 June, 1917	$412 60	
Surplus music fees transferred	677 41	
	$1,090 01	
Expenses of recitals and upkeep, 1917-18	326 98	
Balance on 30 June, 1918		763 03
		$58,186 47

SCHEDULE 4*c*.

Annuity Debentures.

Issue of July, 1909, $500,000, repayable in forty equal annual amounts of $25,260 each.	
Value as on 30 June, 1918, of the (thirty-one) outstanding instalments	$444,285 21
Issue of January, 1911, under 1 George V, Cap. 80, for construction of Pathological building, $130,000, repayable in forty equal annual amounts of $6,568 each.	
Value as on 30 June, 1918, of the (thirty-three) outstanding instalments	119,195 00
Accrued on 30 June, 1918, of eighth payment and charged to Revenue, 1917-18	3,284 00
Issue of January, 1911, under 1 George V, Cap. 80, as a grant towards construction of Toronto General Hospital, $300,000, repayable in forty equal annual instalments of $15,157 each.	
Value as on 30 June, 1918, of the (thirty-three) outstanding instalments	275,066 00
Accrued on 30 June, 1918, of eighth payment and charged to Revenue, 1917-18	7,578 50
Issue of April, 1915, under R.S.O. 1914, Cap. 279, to provide for the payment of $100,000 to the Hart A. Massey Estate towards the Gymnasium portion of Hart House, $110,000, repayable in forty equal annual instalments of $5,975 each.	
Value as on 30 June, 1918, of the (thirty-seven) outstanding instalments	106,726 99
Accrued on 30 June, 1918, of fourth payment and charged to Revenue, 1917-18	1,244 80
	$957,380 50

SCHEDULE 5*a*.

Contingent Funds.

Contingent Fund (Investment Reserve):			
Fund as per last report			$22,603 15
Sundry Ledger Balances (Items in suspense):			
Pathological Building, Heat and Light	$3,500 00		
Contingent Repairs (Military)	150 00		
Royal Ontario Museum, Special Account	3,866 05		
		$7,516 05	
Less:			
Superintendent's Stores Account (Merchandise)	$2,647 01		
Fire Loss, 69 St. George Street	12 00		
		2,659 01	
			4,857 04
Special Grant received from Provincial Government		$200,000 00	
Balance on hand from previous special grants		17,802 38	
		$217,802 38	
Deficit upon Revenue Account, 1917-18, as per Schedule 5*b*.		166,757 93	
Balance unappropriated on 30 June, 1918			51,044 45
			$78,504 64

SCHEDULE 5*b*.

Revenue, 1917-18.

Receipts.

	Estimate.	Actual.
Legislative Grant, University Act, 1906	$500,000 00	$500,000 00
Legislative Grant, 60 Vict., Cap. 59	7,000,00	7,000 00
Grant by Provincial Government on account of Faculty of Education (inclusive of $9,000 due, carried in Accounts Receivable)	15,000 00	15,000 00
Grant by Provincial Government for special course in Household Science due and carried in Accounts Receivable	4,500 00	4,257 00
Fees, University and College, as detailed in Appendix II.	185,000 00	185,573 43
Interest:		
On Purchase Moneys	1,650 00	1,666 19
On Loans	900 00	994 84
On Debentures	10,500 00	11,219 28
On War Loan Bonds	5,875 00	6,713 70
On Bank Balances	3,000 00	1,651 05
Sundry Investment Earnings	.....	317 18
Rentals:		
University Park ground leases	18,000 00	18,786 02
City of Toronto payment	6,000 00	6,000 00
Business properties	6,870 00	7,145 88
Sundry Houses, etc.	2,500 00	2,395 67
Sundry Land Earnings	.....	20 00
Men's Residences (receipts from military)	9,000 00	11,529 57
Women's Residence Dues	21,500 00	22,179 30
Dining Hall (receipts from military)	31,250 00	63,197 05
University College Women's Union:		
Membership fees	1,200 00	1,464 00
Receipts from rooms and meals	5,700 00	6,732 55
Central Power Plant Receipts:		
Wycliffe, Victoria and Knox Colleges $34,050 98		
Royal Ontario Museum 4,608 19		
Sundry Accounts 4,096 27		
	27,000 00	42,755 44
Casual Revenue	.....	292 00
	$862,445 00	$916,890 15

Expenditures.

	Estimate.	Actual.
1. Administration	$149,700 00	$141,694 98
2. Faculty of Arts	289,089 50	277,313 41
3. Faculty of Medicine	92,091 00	94,994 26
4. Faculty of Applied Science	125,905 00	117,244 61
5. Faculty of Household Science	17,455 00	16,969 81
6. Faculty of Education	89,300 00	89,866 94
7. Faculty of Forestry	11,625 00	10,371 00
8. University Extension and Social Service	9,975 00	8,368 51
9. Residences and Dining Hall	68,265 00	94,701 91
10. Royal Ontario Museum	17,500 00	17,831 37
11. Central Power Plant	70,000 00	92,497 56
12. Contingencies	5,000 00	1,380 81
13. Capital Account Charges	74,418 00	75,994 81
14. Special Research	15,000 00	11,994 97
15. Toronto General Hospital, Special Grant	.....	25,000 00
Total as per Appendix III.	$1,035,323 50	$1,076,224 95
Interest written to Scholarship and other Funds	8,000 00	7,423 13
	$1,043,323 50	$1,083,648 08
Receipts as above	862,445 00	916,890 15
Expenditure in excess of receipts, carried to Schedule 5a	$180,878 50	$166,757 93

SCHEDULE 6.

Site Lands, Buildings and Contents.

Site Lands:		
2,666,220 sq. feet at forty cents per foot	$1,066,488 00	
160,083 sq. feet at cost price	141,548 00	
2,826,303 sq. feet		$1,208,036 00
Buildings:		
Household Science building	$455,000 00	
Main building	450,000 00	
Chemistry and Mining, with adjacent building	384,736 89	
Physics building	363,945 85	
Library building	327,425 50	
Convocation Hall and Examination Wing	214,866 22	
Education building	184,383 47	
Education building Annex	6,698 63	
Pathological building	169,694 38	
Medical building	165,000 00	
Biological building	129,745 30	
Thermodynamics building	119,017 21	
Chemical building	77,469 88	
Engineering building	50,000 00	
Forestry building	30,101 65	
Geodetic Observatory building	12,000 27	
Social Service building	7,500 00	
Men's Residences	170,000 00	
Women's Residences	69,222 06	
University College Women's Union	13,521 18	
Y. M. C. A. building	1 00	
	$3,400,329 49	
Less balances of purchase money yet due on Social Service building and Women's Residence, 184 College Street	9,250 00	$3,391,079 49
Library	$216,339 28	
Museum Specimens	1 00	
Convocation Hall Organ	19,603 11	
		235,943 39

Site, Lands, Buildings and Contents.—Continued.

Departmental Equipment:		
1. Faculty of Arts:		
Physics	$29,250 00	
Chemistry	14,040 00	
Physiology	12,500 00	
Mineralogy	10,145 00	
Geology	7,505 00	
Biology	6,131 25	
Botany	5,500 00	
Psychology	2,700 00	
Astro-Physics	1,635 00	
Mechanics	750 00	
Mathematics	500 00	
2. Faculty of Medicine:		
Pathology	18,440 56	
Chemical Pathology	7,925 74	
Pharmacology	2,430 00	
Anatomy	1,340 00	
3. Faculty of Applied Science:		
Electrical Engineering	30,923 00	
Mining	16,270 00	
Surveying	12,980 00	
Architecture and Drawing	10,830 00	
Applied Chemistry	10,114 00	
Applied Mechanics	10,075 00	
Thermodynamics and Hydraulics	10,000 00	
Physics and Photography	4,127 00	
4. Faculty of Household Science	19,000 00	
5. Faculty of Education	10,000 00	
		$255,111 55
Furniture and Furnishings:		
Men's Residences	$13,198 30	
Women's Residences	9,029 79	
University College Women's Union	950 00	
Education Building Annex	1,775 91	
General furniture, various buildings	11,938 00	
		36,892 00
Athletic Field Stadium and equipment		21,817 88
Gymnasium equipment		1,800 00
Dining Hall equipment		1 00
Printing Plant		1 00
Antitoxin Laboratory Plant		1 00
Connaught Laboratories		1 00
Central Power Plant		397,898 50
Total valuation		$5,548,582 81
Return of 30 June, 1917		$5,539,158 19
Additions thereto:		
Library proper:		
Value of additions for 1917-18 as reported by the Librarian	$7,264 00	
Less depreciation at 3% on $223,030.18...	6,690 90	
	$573 10	
Education Building Annex:		
Expended on alterations to building corner of Bloor Street and Spadina Avenue	$6,698 63	
Furnishings, etc.	1,775 91	
	8,474 54	
Connaught Laboratories:		
To open account for record	1 00	
Instalments paid on balances due on purchase of buildings Nos. 8 Queen's Park and 184 College Street	1,250 00	
		10,298 64
		$5,549,456 83

Contra.

Women's Residences, Furniture, etc.:		
Written off by application of credit from sales of wild lands set apart for Women's Residences	$419 55	
Men's Residences, Furniture, etc.:		
Item sold	5 00	
Athletic Field Stadium, etc.:		
Repayment by Athletic Association on account of principal due by them	449 47	
		874 02
Return of 30 June, 1918		$5,548,582 81

SCHEDULE 7.

Unproductive Lands.

Vacant Land in Port Hope	$8,445 00	
Vacant Land in Belleville	1,183 00	
Endowment Lands unsold in various townships	152 00	
U. C. C. Block on King Street	49,970 00	
		$59,750 00

Transactions, 1917-18.

Upper Canada College Block:		
Taxes paid *re* widening of Duncan Street (1918)	$19 83	
Return of 30 June, 1917	59,830 17	
	$59,850 00	
Less Belleville Lot, sold	100 00	
Return of 30 June, 1918		$59,750 00

SCHEDULE 8.

Leased Properties.

Victoria College Site	$1 00	
Knox College Site	4,714 40	
Wycliffe College Site	22,000 00	
Land leased to City of Toronto	120,000 00	
Park Land leased	367,004 00	
Toronto Business Properties	61,401 00	
Caradoc Farm	2,700 00	
		$577,820 40
House and land, 47 St. George Street	$10,172 95	
House and land, 69 St. George Street	20,000 00	
Building, No. 8 University Crescent	14,842 75	
Building, No. 719 Spadina Avenue	4,000 00	
Building, No. 721 Spadina Avenue	4,023 51	
Building, No. 6 Queen's Park	2,248 89	
		$55,288 10
Rentals accrued, but not due	$9,332 29	
Rentals past due	420 00	
City of Toronto payment accrued	1,500 00	
Wycliffe College pavement	442 45	
		11,694 74
		$644,803 24

Leased Properties.—Continued.

Return of 30 June, 1917	$632,094 66	
Addition to capitalized value of Lots 12, 13 and 14 University Park, to place upon basis of 40 cents per superficial foot ($19,166, less already entered, $9,500)	9,666 00	
Payments thus far made upon purchase of buildings thereon	2,248 89	
Increase in rentals outstanding	793 69	
Return of 30 June, 1918		$644,803 24

SCHEDULE 9.

Investments, Cash and Accounts Receivable.

Debentures and Municipal Bonds	$254,858 38	
Interest accrued but not due	4,272 57	
		$259,130 95
Loans secured by mortgages on real property	$14,098 90	
Interest accrued but not due	105 82	
		14,204 72
Unpaid purchase money upon land sales	$25,500 00	
Interest accrued but not due	382 38	
		25,882 38
Canadian War Loan and Province of Ontario Bonds	$160,079 84	
Interest accrued but not due	546 21	
		160,626 05
Home Bank of Canada shares		800 00
Dominion Power and Transmission Co., shares		2,000 00
Advance to Royal Ontario Museum Board for salaries and expenses for the year 1917-18	$35,662 74	
Less University's share charged to Revenue	17,831 37	
Payable by Provincial Government		17,831 37
Balance of grant due by Provincial Government for 1917-18: Faculty of Education ($9,000.00, less amount on hand from superannuation deductions, $507.25)		8,492 75
Accounts Receivable:		
University Press	$4,718 59	
Department of Photography	32 35	
Antitoxin Laboratory	10,327 44	
Miscellaneous labor and material	1,979 60	
		17,057 98
Central Power Plant:		
Victoria College Account:		
Share of operating expenses, 1917-18.... $13,439 35		
Interest, sinking fund and rental charges 3,218 72		
	$16,658 07	
Wycliffe College Account:		
Share of operating expenses, 1917-18.... $7,170 61		
Interest, sinking fund and rental charges 543 12		
$7,713 73		
Less paid on account 1,770 37		
	5,943 36	
Knox College Account:		
Share of operating expenses, 1917-18.... $8,203 88		
Interest, sinking fund and rental charges 1,475 30		
	9,679 18	
		32,280 61
Canadian Bank of Commerce, on deposit		163,644 92
		$701,951 73

Transactions, 1917-18.

Inwards.

Debentures redeemed	$13,611 19	
Mortgage loans repaid	1,251 76	
Purchase money collections	100 00	
Withdrawals from Canadian Bank of Commerce	1,340,850 15	
Decrease in accrued revenue	907 42	
		$1,356,720 52

Outwards.

Debenture investments	$50,211 44	
War Loan investments	35,109 52	
Land Sale	100 00	
Deposits in Canadian Bank of Commerce	1,343,010 04	
Increase in accounts outstanding	13,754 21	
		1,442,185 21
		$85,464 69
Return of 30 June, 1917		616,487 04
Return of 30 June, 1918		$701,951 73

APPENDIX II.

Fees, 1917-18.

Balance brought forward from 1916-17		$698 00	
Total of fees collected, 1917-18		197,690 34	
			$198,388 34
Less:			
Sundry refunds during year		$1,788 50	
Paid to Students' Administrative Council, Council fees		2,107 00	
Paid to Hospitals, fees payable from Students in Medicine:			
Toronto General	$3,495 00		
St. Michael's	813 25		
Sick Children's	773 35		
Western	303 40		
		5,385 00	
Paid to Hamilton Conservatory of Music, *re* Local Examination Candidates from that centre		7 00	
Transferred to University College Women's Union		1,464 00	
Transferred to Microscopes Account		1,080 00	
Fees paid in advance for 1918-19		306 00	
			12,137 50
			$186,250 84
Carried to Organ Fund (Schedule 4*b*) surplus fees derived from Local Examinations in Music after payment of expenses			$677 41
Balance to Revenue Account (Schedule 5*b*)			185,573 43
			$186,250 84

Details of Fees Received.

Subject.	1st year.	2nd year.	3rd year.	4th year.	5th year.	Miscellaneous.	Total.
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
I. Faculty of Arts:							
Tuition	8,697 00	4,663 00	4,982 00	4,678 00	.....	850 00	23,870 00
Dispensations (University College)	.....	20 00	15 00	5 00	.....	.....	40 00
Dispensations (University)	5 00	40 00	29 00	10 00	.....	.....	84 00
Honor Certificates	.....	.....	.....	1 00	.....	32 00	33 00
Matriculation	.....	.....	.....	.....	.....	924 00	924 00
Ad Eundem	.....	40 00	25 00	.....	.....	.....	65 00
Examinations	3,780 65	4,234 00	3,680 00	2,890 00	.....	374 50	14,959 15
Degrees	.....	.....	.....	1,960 00	.....	.....	1,960 00
Laboratory Supplies	289 00	395 00	621 00	496 00	.....	.....	1,801 00
Library	774 00	466 00	476 00	390 00	.....	22 00	2,128 00
Gymnasi'm, Men's (including lockers)	12 00	.....	.....	.....	.....	17 25	29 25
Gymnasium, Women's (including lockers)	293 00	134 00	112 00	126 00	.....	97 94	762 94
Women's Union	410 00	283 00	300 00	297 00	.....	144 00	1,434 00
Penalties (University)	23 00	26 00	26 00	18 00	.....	11 00	104 00
Penalties (University College)	280 00	213 00	228 00	156 00	.....	61 00	938 00
Students' Council.	392 00	176 00	168 00	120 00	.....	.....	856 00
	14,955 65	10,690 00	10,662 00	11,147 00	.....	2,533 69	49,988 34
II. Faculty of Medicine:							
Tuition	20,458 00	12,246 00	10,970 00	8,531 00	12,737 00	2,740 00	67,682 00
Matriculation	5 00	.....	.....	.....	.....	.....	5 00
Ad Eundem	.....	50 00	20 00	40 00	20 00	.....	130 00
Honor Certificates	.....	.....	1 00	.....	.....	10 00	11 00
Examinations	1,580 00	1,090 00	980 00	840 00	1,030 00	.....	5,520 00
Degrees	.....	.....	.....	.....	1,860 00	100 00	1,960 00
Laboratory Supplies	1,256 00	1,056 00	243 00	320 00	475 00	.....	3,350 00
Library	314 00	192 00	162 00	128 00	190 00	.....	986 00
Gymnasium (Women's)	18 00	.....	.....	.....	.....	.....	18 00
Women's Union	16 00	.....	.....	3 00	4 00	.....	23 00
Penalties	75 00	103 00	113 00	75 00	103 00	.....	469 00
Students' Council.	288 00	182 00	161 00	108 00	182 00	.....	921 00
Microscopes	.....	420 00	180 00	300 00	120 00	60 00	1,080 00
	24,010 00	15,339 00	12,830 00	10,345 00	16,721 00	2,910 00	82,155 00
III. Faculty of Applied Science:							
Tuition	6,161 00	3,372 00	2,603 00	2,509 00	.....	.....	14,645 00
Honor Certificates	.....	.....	.....	.....	.....	1 00	1 00
Examinations	700 00	440 00	580 00	300 00	.....	40 00	2,060 00
Degrees	.....	.....	.....	210 00	.....	30 00	240 00
Ad Eundem	.....	10 00	10 00	.....	.....	.....	20 00
Library	140 00	68 00	52 00	46 00	.....	.....	306 00
Gymnasium	4 00	4 00	.....	.....	.....	.....	8 00
Women's Union	4 00	.....	.....	.....	.....	.....	4 00
Penalties	30 00	12 00	19 00	16 00	.....	.....	77 00
Students' Council.	138 00	72 00	52 00	50 00	.....	.....	312 00
	7,177 00	3,978 00	3,316 00	3,131 00	.....	71 00	17,673 00

Details of Fees Received.—Continued.

Subject.	1st year.	2nd year.	3rd year.	4th year.	5th year.	Miscellaneous.	Total.
IV. Faculty of Education:	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
Tuition (Teachers in training)						6,610 00	6,610 00
Dispensation from teaching in Province of Ontario						500 00	500 00
Honor Certificates						21 00	21 00
Examinations						562 00	562 00
Degrees						45 00	45 00
Gymnasium (Women's)						16 00	16 00
University Schools:						7,754 00	7,754 00
Tuition						24,686 00	24,686 00
						32,440 00	32,440 00
V. Faculty of Forestry:							
Tuition	187 00	18 00		144 00			349 00
Examinations	50 00			40 00		10 00	100 00
Laboratory Supplies	36 00			32 00			68 00
Library	10 00	8 00		8 00			26 00
Degrees		2 00		20 00		10 00	32 00
Penalties	6 00						6 00
Students' Council	10 00	2 00		6 00			18 00
	299 00	30 00		250 00		20 00	599 00
VI. University Extension and Social Service:							
(a) Summer Session:							
Lecture fees ($336, of which $238 paid in 1916-17)						98 00	98 00
Lecture Fees (in advance for 1918-19)						306 00	306 00
Correspondence Courses						948 00	948 00
Teachers' Courses						679 00	679 00
						2,031 00	2,031 00
(b) Social Service:							
Lecture fees						1,570 00	1,570 00
						3,601 00	3,601 00

Details of Fees Received.—Continued.

VII. Departmental Fees.	Post Graduate Studies.	Law.	Dentistry.	Music.		Pharmacy.	Veterinary Science.	Agriculture.	Total.
				Mus. Bac.	Local.				
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
Tuition	543 00	.....	.....	.....	.....	.....	3,200 00	.....	3,743 00
Matriculation	.....	25 00	580 00	20 00	.....	100 00	35 00	.....	760 00
Ad Eundem	.....	.....	10 00	.....	.....	.....	.....	.....	10 00
Registration	385 00	.....	.....	.....	.....	.....	.....	.....	385 00
Examinations	295 00	40 00	1,780 00	40 00	1,763 00	240 00	160 00	380 00	4,698 00
Degrees	295 00	20 00	170 00	.....	.....	200 00	95 00	350 00	1,130 00
Honor Certificates	.....	.....	.....	.....	501 00	.....	.....	.....	501 00
Library	4 00	.....	.....	.....	.....	.....	.....	.....	4 00
Women's Union	3 00	.....	.....	.....	.....	.....	.....	.....	3 00
	1,525 00	85 00	2,540 00	60 00	2,264 00	540 00	3,490 00	730 00	11,234 00

Summary of Fees.

I. Faculty of Arts:		
First year	$14,955 65	
Second year	10,690 00	
Third year	10,662 00	
Fourth year	11,147 00	
Miscellaneous	2,533 69	
		$49,988 34
II. Faculty of Medicine:		
First year	$24,010 00	
Second year	15,339 00	
Third year	12,830 00	
Fourth year	10,345 00	
Fifth year	16,721 00	
Miscellaneous	2,910 00	
		82,155 00
III. Faculty of Applied Science:		
First year	$7,177 00	
Second year	3,978 00	
Third year	3,316 00	
Fourth year	3,131 00	
Miscellaneous	71 00	
		17,673 00
IV. Faculty of Education:		
Teachers in training	$7,754 00	
University Schools	24,686 00	
		32,440 00
V. Faculty of Forestry:		
First year	$299 00	
Second year	30 00	
Fourth year	250 00	
Miscellaneous	20 00	
		599 00
VI. University Extension and Social Service:		
Miscellaneous	$3,601 00	
		3,601 00

Summary of Fees.—Continued.

VII. Departmental:		
Post Graduate Studies	$1,525 00	
Law	85 00	
Dentistry	2,540 00	
Music	2,324 00	
Pharmacy	540 00	
Veterinary Science	3,490 00	
Agriculture	730 00	
		11,234 00
		$197,690 34

Classification of Services.

Tuition Fees:		
Arts	$23,870 00	
Medicine	67,682 00	
Applied Science	14,645 00	
Education, Teachers in Training	6,610 00	
Education, University Schools	24,686 00	
Forestry	349 00	
Departmental	3,743 00	
Dispensations	624 00	
Honor Certificates	566 00	
Registration (Post Graduate)	385 00	
Matriculation	1,690 00	
Ad Eundem	225 00	
Examinations	27,899 15	
Degrees	5,367 00	
Laboratory Supplies	5,219 00	
Library	3,450 00	
Gymnasium	834 19	
Women's Union	1,464 00	
University Extension and Social Service	3,601 00	
Penalties	1,594 00	
Students' Council	2,107 00	
Microscopes Account	1,080 00	
		$197,690 34

Recapitulation.

	Gross.	Refunds and other Deductions.	Net.
University Fees proper	$54,769 34	$3,698 00	$51,071 34
University College Fees Proper	24,848 00	1,140 50	23,707 50
Medicine	67,682 00	6,500 00	61,182 00
Applied Science	14,645 00	145 00	14,500 00
Education, including University Schools	31,796 00	211 00	31,585 00
Forestry	349 00	.....	349 00
University Extension and Social Service	3,601 00	443 00	3,158 00
Balance brought forward from 1916-17	698 00	.....	698 00
	$198,388 34	$12,137 50	$186,250 84

APPENDIX III.

Revenue Expenditures, 1917-18.

	Appropriation.	Supplementary.	Unused.	Total.
I. Administration:				
1. Salaries	$70,875 00		$1,219 81	$69,655 19
2. Pensions	2,500 00			2,500 00
3. President's Office	250 00	$89 87		339 87
4. Bursar's Office	2,450 00	187 38		2,637 38
5. Registrar's Office	4,225 00		1,501 47	2,723 53
6. Superintendent's Office	650 00		8 98	641 02
7. Library	11,660 00		75 12	11,584 88
8. Gymnasium and Students' Union	6,050 00	1,256 03		7,306 03
9. Convocation Hall	2,390 00		391 96	1,998 04
10. Grounds	13,300 00		1,130 63	12,169 37
11. Examinations	12,500 00		3,000 79	9,499 21
12. Convocation Expenses	500 00		69 56	430 44
13. Receptions	500 00	179 17		679 17
14. Telephones	3,300 00		48 66	3,251 34
15. Insurance	8,500 00		211 30	8,288 70
16. Advertising Expenses	1,300 00		338 66	961 34
17. Aid to Publications and Societies	1,750 00		700 00	1,050 00
18. University Studies	2,500 00		1,543 24	956 76
19. Law Costs	500 00		199 47	300 53
20. Travelling Expenses	1,000 00	628 06		1,628 06
21. Senate Elections	.....			.....
22. Roll of Service	3,000 00	94 12		3,094 12
	$149,700 00	$2,434 63	$10,439 65	$141,694 98
II. Faculty of Arts:				
23. Salaries	$250,237 00		$8,630 21	$241,606 79
24. Retiring Allowances	1,387 50			1,387 50
25. Main Building	8,800 00		2,236 73	6,563 27
26. Biological Building and Department	5,835 00	$1,345 03		7,180 03
27. Sub-Department of Botany	3,350 00	465 26		3,815 26
28. Bio-Chemical Department	1,500 00		11 28	1,488 72
29. Physiological Department	1,650 00		30 80	1,619 20
30. Chemical Building and Department	3,210 00	139 67		3,349 67
31. Sub-Department of Physical Chemistry	300 00		22 13	277 87
32. Physics Building and Department	8,600 00		1,648 51	6,951 49
33. Sub-Department of Astro-Physics	850 00	59 86		909 86
34. Geological Department	400 00		16 41	383 59
35. Mineralogical Department	500 00		28 14	471 86
36. Psychological Department	500 00		100 12	399 88
37. Mathematical Department	30 00		26 55	3 45
38. Sub-Department of Mechanics	25 00		14 01	10 99
39. Political Science	75 00		55 48	19 52
40. History	75 00		54 80	20 20
41. Italian and Spanish	25 00		7 55	17 45
42. University College Departments	890 00		672 25	217 75
43. University College General Expenses	350 00		182 18	167 82
44. Trinity College Service	500 00		48 76	451 24
	$289,089 50	$2,009 82	$13,785 91	$277,313 41

Revenue Expenditures. 1917-18.—Continued.

	Appropriation.	Supplementary.	Unused.	Total.
III. Faculty of Medicine:				
45. Salaries	$71,446 00		$968 66	$70,477 34
46. Retiring Allowances	250 00		250 00	.....
47. Anatomy	2,500 00		427 17	2,072 83
48. Pathology and Bacteriology.	1,725 00	$46 37		1,771 37
49. Chemical Pathology	1,500 00		43 46	1,456 54
50. Pharmacy and Pharmacology	455 00		24 91	430 09
51. Medicine	200 00		58 00	142 00
52. Surgery	300 00		201 50	98 50
53. Obstetrics and Gynaecology.	300 00		172 43	127 57
54. Ophthalmology	100 00		100 00	.....
55. Oto-Laryngology	100 00		100 00	.....
56. Therapeutics	50 00		50 00	.....
57. Hygiene	950 00	6 40		956 40
58. Medical Jurisprudence	.....			.....
59. Medical Building	4,325 00	229 47		4,554 47
60. Pathological Building	5,890 00	4,769 28		10,659 28
61. General Expenses	2,000 00	247 87		2,247 87
	$92,091 00	$5,299 39	$2,396 13	$94,994 26
IV. Faculty of Applied Science:				
62. Salaries	$100,905 00		$5,577 82	$95,327 18
63. C. & M. Building	5,400 00		192 00	5,208 00
64. Engineering Building	3,795 00		392 62	3,402 38
65. Thermodynamics Building	1,825 00		33 92	1,791 08
66. Observatory Building	335 00		24 17	310 83
67. Electrical Engineering	2,880 00	$14 93		2,894 93
68. Mechanical Engineering	1,850 00		104 63	1,745 37
69. Applied Mechanics	500 00		338 03	161 97
70. Mining Engineering	800 00	23 81		823 81
71. Metallurgical Engineering	1,000 00		649 07	350 93
72. Ferro-Metallurgy	75 00		73 50	1 50
73. Surveying	450 00		64 46	385 54
74. Applied Chemistry	1,200 00		7 49	1,192 51
75. Electro-Chemistry	1,450 00		100 25	1,349 75
76. Architecture and Drawing.	890 00		530 01	359 99
77. Engineering Physics and Photography	1,650 00		512 87	1,137 13
78. General Expenses	900 00		98 29	801 71
	$125,905 00	$38 74	$8,699 13	$117,244 61
V. Faculty of Household Science:				
79. Salaries	$10,900 00			$10,900 00
80. Household Science Building Department	6,555 00		$485 19	6,069 81
	$17,455 00		$485 19	$16,969 81
VI. Faculty of Education:				
81. Salaries	$64,350 00		$160 00	$64,190 00
82. Education Building and Department	24,950 00	$726 94		25,676 94
	$89,300 00	$726 94	$160 00	$89,866 94
VII. Faculty of Forestry:				
83. Salaries	$8,850 00		$958 34	$7,891 66
84. Forestry Building and Department	2,775 00		295 66	2,479 34
	$11,625 00		$1,254 00	$10,371 00

Revenue Expenditures, 1917-18.—Continued.

	Appropriation.	Supplementary.	Unused.	Total.
VIII. University Extension and Social Service:				
85. University Extension	$6,150 00		$1,037 04	$5,112 96
86. Social Service Building and Department	3,825 00		569 45	3,255 55
	$9,975 00		$1,606 49	$8,368 51
IX. Residences and Dining Hall:				
87. Men's Residences	$5,575 00		$3,822 76	$1,752 24
88. Women's Residences	21,720 00		93 95	21,626 05
89. Dining Hall	31,250 00	$28,672 81		59,922 81
90. University College Women's Union	9,720 00	1,680 81		11,400 81
	$68,265 00	$30,353 62	$3,916 71	$94,701 91
X. 91. Royal Ontario Museum	$17,500 00	$331 37		$17,831 37
XI. 92. Central Light, Heat and Power Plant	$70,000 00	$22,497 56		$92,497 56
XII. 93. Contingencies	$5,000 00		$3,619 19	$1,380 81
XIII. 94. Capital Account Charges....	$74,418 00	$1,576 81		$75,994 81
XIV. 95. Special Research	$15,000 00		$3,005 03	$11,994 97
XV. 96. Special Grant to Toronto General Hospital		$25,000 00		$25,000 00

Recapitulation.

I. Administration	$149,700 00	$2,434 63	$10,439 65	$141,694 98
II. Faculty of Arts	289,089 50	2,009 82	13,785 91	277,313 41
III. Faculty of Medicine	92,091 00	5,299 39	2,396 13	94,994 26
IV. Faculty of Applied Science	125,905 00	38 74	8,699 13	117,244 61
V. Faculty of Household Science ..	17,455 00		485 19	16,969 81
VI. Faculty of Education	89,300 00	726 94	160 00	89,866 94
VII. Faculty of Forestry	11,625 00		1,254 00	10,371 00
VIII. University Extension and Social Service	9,975 00		1,606 49	8,368 51
IX. Residences and Dining Hall ...	68,265 00	30,353 62	3,916 71	94,701 91
X. Royal Ontario Museum	17,500 00	331 37		17,831 37
XI. Central Power Plant	70,000 00	22,497 56		92,497 56
XII. Contingencies	5,000 00		3,619 19	1,380 81
XIII. Capital Account Charges	74,418 00	1,576 81		75,994 81
XIV. Special Research	15,000 00		3,005 03	11,994 97
XV. Special Grant to Toronto General Hospital		25,000 00		25,000 00
	$1,035,323 50	$90,268 88	$49,367 43	$1,076,224 95
		49,367 43		
		$40,901 45		
	$40,901 45			
Total expenditure under appropriations	$1,076,224 95			

I. Administration.

1. *Salaries.*

President's Office.

Sir Robert Falconer, K.C.M.G., President, 12 mos. to 30 June..	$8,000 00	
Miss A. W. Patterson, President's Secretary, 12 mos. to 30 June	1,500 00	
		$9,500 00

Bursar's Office.

F. A. Mouré, Bursar, 12 mos. to 30 June	$3,800 00	
W. R. Hamilton, Accountant, 12 mos. to 30 June	1,700 00	
H. J. Bolitho, Fees Clerk, 12 mos. to 30 June	1,700 00	
Miss A. M. Gall, Clerk and Stenographer, 12 mos. to 30 June	1,100 00	
Miss K. W. Huntington, Voucher Clerk, 12 mos. to 30 June (resigned)	900 00	
C. E. Higginbottom, Office Assistant, 12 mos. to 30 June, $900; bonus for extra services, $100	1,000 00	
Miss E. B. Goodwin, Clerk and Stenographer, 12 mos. to 30 June	800 00	
W. W. Macdonald, Clerk, 12 mos. to 30 June	700 00	
J. P. Jones, Clerk at $550 (war service, half pay)	275 00	
		$11,975 00

Registrar's Office.

J. Brebner, Registrar, 12 mos. to 30 June	$3,400 00	
A. B. Fennell, Assistant Registrar and Secretary to Residence Committee, at $1,800 (war service, half pay)	900 00	
A. T. Laidlaw, Assistant, 12 mos. to 30 June	1,700 00	
Miss I. G. O'Neil, Clerk, 12 mos to 30 June	900 00	
Miss N. MacKenzie, Minute Clerk, 12 mos. to 30 June (including $50 as Secretary to Graduate Board)	900 00	
Stenographers, each 12 mos. to 30 June:		
Miss M. McMillan	850 00	
Miss A. S. Meen	850 00	
Miss E. M. Sharpe	750 00	
Miss J. R. White	750 00	
		$11,000 00

Superintendent's Office.

G. Campbell, Superintendent of Buildings and Grounds, 12 mos. to 30 June	$3,000 00	
A. D. LePan, Joint Superintendent, at $2,600 (war service, half pay)	1,300 00	
W. H. Bonus, Assistant Superintendent, 12 mos. to 30 June ..	1,500 00	
W. L. D. Carnie, Chief Clerk, 140 hours at 50c., $70; 1 Aug. to 15 March, at $900 per annum, $562.50; 16 March to 30 June at $1,056 per annum, $308	940 50	
Miss J. Bell, Clerk, 1 July to 14 March, at $15 per week, $547.49; 15 to 31 March at $16 per week, $38.86; 1 April to 30 June at $832 per annum, $208	794 35	
Stenographers:		
Miss M. Higgins, 1 July to 22 Sept., at $12 per week	142 85	
Miss M. Edgar, 1 week to 30 Sept., $12; 1 Oct. to 14 March, at $14 per week, $337.78; 15 to 31 March at $16 per week, $38.86; 1 April to 30 June at $832 per annum, $208	586 84	
Customs Clerks:		
Miss K. Fahey, 1 July to 31 Oct., at $10 per week	174 06	
Miss F. Macdonald, 1 Nov. to 7 Feb., at $10 per week	136 64	
Miss C. Scott, 4 Feb., to 21 March, at $10 per week, $64.29; 22 March to 29 June at $5 per week (part time)	130 72	
		$8,705 96

1. *Salaries.*—Continued.

Library.

H. H. Langton, Librarian, 12 mos. to 30 June	$3,400 00	
Miss G. Buchan, First Assistant, 12 mos. to 30 June	1,300 00	
Assistants, each 12 mos. to 30 June:		
Miss E. Creighton	850 00	
Miss H. Fairbairn	850 00	
Miss G. Cayley	850 00	
Mrs. A. C. Jones	850 00	
Miss H. G. B. Woolryche	850 00	
Miss A. H. Young, Cataloguer, 12 mos. to 30 June	1,300 00	
Assistant Cataloguers, each 12 mos. to 30 June:		
Miss E. V. Bethune	850 00	
Miss A. E. Stennett	750 00	
Miss I. Edwards	650 00	
Miss E. Aldridge, Typewriting Assistant to Cataloguers, 12 mos. to 30 June	750 00	
Miss L. M. Mason, Order and Accession Clerk, 12 mos. to 30 June	1,100 00	
Delivery Clerks:		
Miss M. L. Newton, 12 mos. to 30 June	750 00	
Miss M. Murphy, 3 mos. to 30 Sept., at $650 per annum (resigned)	162 50	
Mrs. A. L. Ridge, 9 mos. from 1 Oct., at $650 per annum	487 50	
S. H. Fussell, Attendant (with rooms, heat and light as caretaker of building), 12 mos. to 30 June	750 00	
		$16,500 00

Museum.

C. T. Currelly, Director of Archaeological Section, 7 mos. to 31 Jan., at $3,000 per annum (transferred to Faculty of Arts)	$1,750 00	
		$1,750 00

Gymnasium.

J. W. Barton, Physical Director, 12 mos. to 30 June	$2,300 00	
T. A. Reed, Financial Secretary to Athletic Directorate, 12 mos. to 30 June (charged to receipts from Athletic Field)	2,100 00	
A. Williams, Instructor, 12 mos. to 30 June (reduced service)	550 00	
		$4,950 00

General Service.

S. J. Apted, services as Bedel, 12 mos. to 30 June (paid also as caretaker of Convocation Hall, and for supervising Engineering building)	$100 00	
A. Bain, Attendant and Messenger, President's Office, 12 mos. to 30 June	800 00	
W. H. Fox, Mechanician at $1,150 (war service, half salary paid to wife)	575 00	
E. F. McKee, substitute, 728¾ hours at 57½c.; 239 hours at 65c.	574 41	
Protective service (see also under Grounds):		
Constables:		
J. Christie at $1,100, war service, part salary paid to wife, $400; allowance credited to pension fund for year, $100	500 00	
W. May, substitute, 12 mos. to 30 June	800 00	
D. Forbes, 12 mos. to 30 June	850 00	
Nightwatchmen:		
D. McGregor, 12 mos. to 30 June	768 00	
J. Banford, 12 mos. to 30 June	720 00	
J. Airhart, 1 July to 28 April, at $720 per annum	555 88	
R. Eades, 6 Nov. to 30 June at $720 per annum	470 00	
Occasional service, relieving, etc.:		
J. Clinton, $388; G. Iliff, $94; A. Pye, $77.55; D. L. Featherstone, $39.39; B. Horton, $34; F. Forebank, $26; R. Green, $2	660 94	

1. *Salaries.*—Continued.

C. C. Grant, Secretary to Students' Administrative Council, 12 mos. to 30 June (charged to Fees)	900 00	
		$8,274 23
		$72,655 19
Less charged to Athletic Field receipts	$2,100 00	
Less charged to Fees	900 00	
		3,000 00
		$69,655 19

2. *Pensions.*

Mrs. Julia Loudon, ex-President Loudon's widow, annual pension	$2,500 00	
		$2,500 00

3. *President's Office.*

Office supplies, postage, printing and incidentals ($339.87):		
Wm. Briggs, printing report	$105 00	
President Sir Robert Falconer, petty disbursements	71 69	
Imperial Glass Works, mirror	10 35	
Office Specialty Mfg. Co., cases and cards	10 68	
University Press, printing and stationery	142 15	
		$339 87

4. *Bursar's Office.*

Office supplies, postage, printing and incidentals ($1,403.88):		
Burroughs Adding Machine Co., inspection and supplies	$10 75	
The Bursar, petty disbursements, $78.21; postage, $157.00; Inland Revenue stamps, $23.00	258 21	
Five-in-One Letter Envelope Co., envelopes	20 00	
Grand & Toy, cheque books, $103.00; war tax stamps and embossing, $262.00; supplies, $10.57	375 57	
Lake Simcoe Ice Supply Co., ice	2 51	
Might Directories, city directory	10 00	
Office Specialty Mfg. Co., card section and folders	20 25	
Miss M. Pyper, 25⅔ weeks' clerical assistance at $11.00 per week	282 34	
Students' Book Dept., almanacs and stationery	4 40	
United Typewriter Co., supplies	3 50	
University Press, printing, stationery and supplies	411 17	
Petty items (2)	2 88	
Superintendent's Dept., labour, $1.56; material, 74c.	2 30	
Vault shelving, etc., ($533.50):		
Office Specialty Mfg. Co.	525 00	
Superintendent's Dept., labour	8 50	
Auditor's remuneration ($700.00):		
G. T. Clarkson	700 00	
		$2,637 38

5. *Registrar's Office.*

Office supplies and stationery ($697.95):		
Brown Bros., stencil	$7 65	
Lake Simcoe Ice Supply Co., ice	2 51	
Might Directories, city directory	10 00	
Office Specialty Mfg. Co., transfer cases, etc.	50 15	
Photography, Dept. of, prints	1 30	
United Typewriter Co., repairs	13 55	
University Press, stationery and supplies	570 98	
Superintendent's Dept., labour, $28.84; material, $12.97	41 81	
Postage ($950.00):		
The Bursar, postage supplied	950 00	
Printing, other than Calendar ($109.48):		
University Press	109 48	

5. *Registrar's Office.*—Continued.

Printing Calendar and Curricula ($831.10):		
University Press	831 10	
Clerical assistance ($135.00):		
Miss H. Bartlet, 9 weeks at $15.00 per week	135 00	
		$2,723 53

6. *Superintendent's Office.*

Office supplies, postage, printing and incidentals ($641.02):		
Art Metropole, linen	$13 89	
The Bursar, postage supplied	108 00	
Canada Stamp & Stencil Co., repairs	1 00	
Copeland-Chatterson Co., binder and paper	13 54	
Evening Telegram, advertising for workmen	2 22	
Grand & Toy, holder	2 25	
Heating & Ventilating Magazine Co., reprints	3 05	
John A. Hertel Co., book	2 50	
Lake Simcoe Ice Supply Co., ice	2 52	
Macey Office Equipment Co., cards and case	3 90	
Maclean Publishing Co., reprints	26 00	
Map Co., mounting	3 75	
Office Specialty Mfg. Co., cards and folders	25 20	
Photography, Dept. of, prints	1 45	
Remington Typewriter Co., inspection	10 00	
The Superintendent, petty disbursements	9 53	
United Typewriter Co., inspection and repairs	21 75	
F. E. Watson, plans	5 00	
University Press, stationery, printing and supplies	359 44	
Freight charges	9 45	
Superintendent's Dept., labour, $14.17; material, $4.81	18 98	
	$643 42	
Less received from sale of plans	2 40	
		$641 02

7. *Library.*

(*a*) Maintenance of Building:		
Heat and light (supplied from Central Power Plant):		
Gas ($41.38):		
Consumers' Gas Co.	$41 38	
Water ($44.57):		
City Treasurer	44 57	
Caretaker's supplies ($65.97):		
Superintendent's Dept., material	65 97	
Cleaning ($667.02):		
Allen Mfg. Co., laundry	11 19	
Canadian Cleaning Co., cleaning windows	25 00	
Superintendent's Dept., labour	630 83	
Repairs and renewals ($734.22):		
Card & McConnell, exterminating rats	10 00	
City Treasurer, elevator license	5 00	
Johnson Temperature Regulating Co. of Canada, repairs	39 09	
A. Matthews, repairs	7 06	
Photography, Dept. of, plans	30	
Superintendent's Dept., labour, $401.43; material, $271.34	672 77	
		$1,553 16
(*b*) General Library Appropriation:		
Books and periodicals, binding and office supplies ($9,988.72):		
Academy of Political Science	$5 05	
E. G. Allen & Son	66 52	
American Academy of Political and Social Science	5 05	
American Anthropological Association	6 08	
American Association for Advancement of Science	3 55	
American Association for Labour Legislation	5 05	
American Ceramic Society	5 05	
American Chemical Society	20 64	
American Concrete Institute	19 64	

7. *Library.*—Continued.

American Economic Association	5 05
American Historical Society	4 05
American Institute of Electrical Engineers	11 66
American Institute of Mining Engineers	12 16
American Journal for Care of Cripples	15 17
American Library Association	5 05
American Mathematical Association	5 05
American Medical Association	6 58
American Railway Engineers Association	6 58
American Society for Testing Materials	8 88
American Society of Civil Engineers	6 08
American Society of Mechanical Engineers	15 12
American Statistical Association	2 05
American Water Works Association	5 05
Annual Review Publishing Co.	4 50
Archaeological Institute of America	9 88
Association for Study of Internal Secretions	8 08
Australian Statesman & Mining Standard Printing, Ltd.	8 46
G. A. Baker & Co.	41 95
Bible Teachers' Training School Library	2 24
Boston Book Co.	8 89
Albert Britnell	17 00
Canada Law Book Co.	18 00
C. D. Cazenove & Son	1,933 04
Honoré Champion	345 14
Cedric Chivers	85 15
John Clark Co.	78 18
T. & T. Clark	6 44
Commission of Conservation, Ottawa	8 98
Miss L. I. Couture	37 07
Daily Telegraph Newspaper Co., Sydney, N.S.W.	14 62
Wm. Dawson & Son	472 79
L. G. Desjardines	4 00
DeWolfe & Fiske Co.	15 26
East Herts. Archaeological Society	2 62
Gauthier-Villars	81 25
Geological Society of America	7 58
Wm. J. Gerhard	26 64
Ginn & Co.	2 80
H. M. Stationery Office	37 35
W. M. Hill	4 15
Johns Hopkins Press	12 13
A. J. Huston	5 42
Imperial Year Book	3 00
Institute of Mining & Metallurgy	2 59
Journal of Animal Behavior and the Behavior Monographs	35 87
W. P. M. Kennedy	17 00
Kimball Bros.	2 40
John Lane Co.	5 68
S. Lapi	5 79
Chas. E. Lauriat Co.	15 42
Librairie Scientifique	9 22
Libreria Internazionale	108 92
B. Login & Son	77 46
Makers of Canada	3 50
Marine Biological Laboratory	24 28
J. A. Marshall	20 52
D. C. McMurtrie	5 05
Museum of Comparative Zoology	202 15
National Foreign Trade Council	3 55
National Geographic Society	3 05
National Municipal League	5 05
National Tax Association	10 08
Thos. Nelson & Sons	5 05
New Zealand Times	19 21
Ontario Library Association	5 00
Pioneer Press, Allahabad	21 95
Princeton University Press	6 33

7. *Library.*—Continued.

Public Printing & Stationery Dept., Ottawa	3 00	
G. P. Putnam's Sons	4 05	
Renouf Publishing Co.	2 09	
J. Ross Robertson	4 00	
G. E. Stechert & Co.	108 51	
Miss A. E. Stennett	13 00	
Students' Book Dept.	1,954 25	
Victoriano Suarez	127 03	
The Survey	7 60	
J. Terquem	784 37	
Thoms & Eron Inc.	8 60	
J. B. Thornhill	4 00	
Torrey Botanical Club	4 05	
Upper Canada Bible Society	2 70	
University of Chicago Press	49 32	
University of Pennsylvania Museum	2 67	
H. W. Wilson Co.	21 28	
Wistar Institute of Anatomy & Biology	88 92	
G. M. Wrong	3 00	
Sundry small accounts (13)	19 99	
The Bursar, postage supplied	201 00	
The Librarian, disbursements: book deposits refunded, $101.00; car tickets, cartage and sundries, $7.90; to be accounted for in 1918-19, $22.95=$131.85; less charged to previous year, $17.65	114 20	
Art Metropole, supplies	2 68	
Canada Stamp & Stencil Co., repairs	1 23	
Canada Furniture Manufacturers, chairs	6 86	
T. Eaton Co., curtains, towelling, etc.	32 25	
Grand & Toy, supplies	2 75	
C. W. Mack, rubber stamps and repairs	4 85	
Might Directories, city directory	10 00	
Office Specialty Mfg. Co., cabinets	35 00	
Remington Typewriter Co., inspection	16 50	
Students' Book Dept., supplies	2 65	
United Typewriter Co., inspection and supplies	9 11	
University Press, binding, $2,095.72; printing and stationery, $291.77	2,387 49	
Freight charges	45 03	
Superintendent's Dept., labour, $17.72; material, $3.83	21 55	
	$10,268 47	
Less graduates' deposits, $142.00; fines, $83.70; replacement of books lost, $14.80; subscriptions to and sales of books, $24.97; refund of freight, $13.38; sale of cases, 90c.	279 75	
	$9,988 72	
Vacuum cleaner ($43.00):		
Superintendent's Dept., vacuum cleaner	43 00	
		$10,031 72
		$11,584 88

8. *Gymnasium and Students' Union.*

(*a*) Maintenance of Building (temporary structure):		
Fuel ($655.27):		
Connell Anthracite Mining Co.	$655 27	
Water ($18.43):		
City Treasurer	18 43	
Caretaker's supplies ($13.30):		
Superintendent's Dept., material	13 30	
Cleaning ($351.02):		
Superintendent's Dept., labour	351 02	

8. *Gymnasium and Students' Union.*—Continued.

Repairs and renewals ($122.11):		
J. M. Wighton, masonry	15 00	
Superintendent's Dept., labour, $55.51; material, $51.60.	107 11	
	$1,160 13	
Less sundry credits: cleaning	15 60	
	$1,144 53	
Caretaker, Geo. Hare, 12 months to 30th June	900 00	
		$2,044 53
(*b*) Aid to Athletics:		
Grant to Athletic Association ($800.00):		
University Athletic Association	800 00	
Gymnastic Appliances, etc. ($109.81):		
G. H. Corsan, water wings	18 00	
Ingram & Bell, stethoscope	2 98	
Shaw Carpet Cleaning Works, repairs to cushions	40 00	
A. G. Spalding & Bros., balls, etc.	19 75	
Freight charges	90	
Superintendent's Dept., labour, $3.18; material, $25.00.	28 18	
Instruction in Swimming (including women students), ($1,000.00):		
G. H. Corsan, services as instructor	1,000 00	
Physical Instruction to Women Students ($1,463.27):		
Miss Ivy Coventry, instructress	1,000 00	
Dr. Geraldine Oakley, examiner	200 00	
Miss J. L. Goodman, pianist's services	89 82	
Gourlay, Winter & Leeming, piano hire	30 00	
Women's Athletic Association, University College, disbursements:		
Miss Grace Ferguson, federal league fees (1916-17)	5 00	
F. Hanmer, attendant, basket ball practices	18 00	
Miss J. Panton, federal league fees (1917-18)	7 50	
Miss W. Simpson, petty disbursements	5 05	
A. G. Spalding & Bros., balls	2 40	
Torontonensis, 1918, articles *re* athletic teams	22 00	
University College Women's Union, refreshments for autumn tea	8 00	
University of Toronto Athletic Association, hockey privileges	27 50	
H. A. Wilson & Co., hockey sticks	3 25	
Women's Athletic Association, Victoria College, disbursements:		
J. Brotherton, balls and sticks	12 75	
F. Hanmer, attendant at basket ball practices	14 00	
Torontonensis, 1918, articles *re* athletic teams	18 00	
(*c*) Department of Military Studies ($1,888.42):		
Canadian Officers' Training Corps, instruction	1,749 00	
D. M. Barton, assistant medical examiner	40 00	
Office Specialty Mfg. Co., cabinet	8 82	
University Press, printing and stationery	32 40	
Clerical Assistance:		
T. M. Mongovan, 63 hours at 40c. per hour	25 20	
Miss E. M. Sharpe, 13 hours at 50c. per hour	6 50	
Miss J. R. White, 13 hrs. at 50c. per hour	6 50	
Robert Wilson, 40 hours at 50c. per hour	20 00	
		$5,261 50
		$7,306 03

9. *Convocation Hall.*

Heat and light (supplied from Central Power Plant):		
Water ($33.32):		
City Treasurer	$33 32	
Caretaker's supplies ($70.83):		
Superintendent's Dept., labour, 28c.; material, $70.55	70 83	
Cleaning ($404.24):		
Canadian Cleaning Co., cleaning windows	6 00	
Superintendent's Dept., labour	398 24	
Repairs and renewals ($1,195.58):		
Card & McConnell, exterminating rats	10 00	
W. E. Dillon & Co., repairs to roof	190 00	
A. Matthews, repairs to roof	126 08	
Photography, Dept. of, plans	85	
F. E. Watson, plans	25 00	
J. M. Wighton, masonry	15 75	
Superintendent's Dept., labour, $557.75; material, $270.15.	827 90	
	$1,703 97	
Caretaker, S. J. Apted, 12 months to 30th June (with house, heat and light)	600 00	
	$2,303 97	
Less amount received from Societies, etc. (net)	305 93	
		$1,998 04

10. *Grounds.*

Labour, gravel, roadways, granolithic walks, flowers and shrubs ($9,244.24):		
Aikenhead Hardware, tools	$5 69	
Asphaltic Concrete Co., grading and repairs to roadway, $882.38; improving playground at University Schools, $200.00	1,082 38	
Banigan, Mathers & Thompson, tracing prints	7 00	
City Treasurer, gulleys	47 47	
Crescent Concrete Paving Co., granolitbic walks	365 00	
T. Eaton Co., supplies	6 28	
Robert Elder Carriage Works, shafts	15 00	
Goodyear Tire & Rubber Co., hose	115 34	
Hardware Co. of Toronto, mowers and tools	81 10	
Chas. E. Lewis, flowers	90 00	
J. H. McCabe, fodder	57 30	
G. Newman, hay and straw	32 93	
Dr. J. N. Pringle, ointment	2 50	
R. Robertson & Sons, culverts	117 24	
John Rydall, blacksmithing	32 55	
Wm. Staughton, fodder	105 86	
Steele Briggs Seed Co., seeds	15 00	
W. H. Thomson, teaming	187 82	
Petty items (4)	3 95	
Superintendent's Dept., labour, $6,744.54; material, $400.48	7,145 02	
	$9,515 43	
Less received from sale of wood, etc., $205.40; repairs, $50.79; grass cutting, $6.60; cartage, $8.40	271 19	
	$9,244 24	
Foreman gardener, G. Trotter, 12 mos. to 30 June	850 00	
Protective service ($444.89):		
House of Hobberlin, uniforms	58 75	
International Time Recording Co., repairs to watchmen's clock, etc.	9 75	
J. T. W. Low, repairs	25	
Superintendent's Dept., labour, $78.54; material, $297.60	376 14	

10. *Grounds.*—Continued.

Special guards at Central Power Plant ($1,027.98): (at $60.00 to $80.00 per month):		
J. C. Wright	371 66	
J. McCurrach	329 66	
J. Wood	121 33	
S. Sharpe	80 00	
R. Eades	52 00	
J. Clinton	52 00	
F. Groulx	11 33	
J. Gibbons	6 00	
E. Joyce	4 00	
Landscape improvements ($517.47):		
Bryant Fleming, amount of contract, $1,450.00; less paid Townsend & Fleming, 1913-14, $500.00; 1914-15, $500.00	450 00	
Bryant Fleming, advice *re* Hart House ground	67 47	
Repairing cottage for caretaker of Convocation Hall ($84.79):		
Superintendent's Dept., labour, $18.73; material, $66.06....	84 79	
		$12,169 37

11. *Examinations.*

Name.	Remuneration as Examiner.	Expenses.	Presiding Examiner.	Attendant.	Total.
	$ c.	$ c.	$ c.	$ c.	$ c.
Aldous, J. E. P.	96 85	220 35			317 20
Alexander, W. J.	22 25				22 25
Allan, F. B.	7 25				7 25
Angus, R. W.	5 25				5 25
Ardagh, E. G. R.	5 25				5 25
Atkinson, G. D.	35 75	15 40			51 15
Auger, C. E.	29 50		10 50		40 00
Baker, A.	5 00				5 00
Baker, A. W.	42 25				42 25
Ballard, W. H.		4 00	5 00		9 00
Banting, E. W.			15 00		15 00
Baumann, E. J.	2 75				2 75
Beatty, S.	36 75		18 00		54 75
Bensley, B. A.	10 75				10 75
Benson, Miss C. C.	10 50				10 50
Bethune, C. J. S.	7 00				7 00
Billings, J. H			9 00		9 00
Bingham, G. A.	45 00				45 00
Birrell, W. G.			16 50		16 50
Blachford, F. E.	20 00				20 00
Bluethner, W. A.	20 00	5 50			25 50
Boddington, D. H.			9 00		9 00
Boswell, M. C.	5 25				5 25
Boyd, Geoffrey	45 00				45 00
Brebner, Miss M.				24 50	24 50
Brebner, W. B.				9 50	9 50
Brett, G. S.	12 00				12 00
Brodey, A.	8 25				8 25
Broome, E.	20 00	3 00			23 00
Brown, A. Grant	23 25				23 25
Buchanan, M. A.	31 75				31 75
Burt-Gerrans, J. T.			15 00		15 00
Burton, E. F.	35 67				35 67
Caesar, L.	11 50				11 50
Caley, D. R.	7 25				7 25
Cameron, Dr. Olive	19 25		4 50		23 75
Cameron, M. H. V.	45 00				45 00
Cameron, I. H.	73 25				73 25
Campbell, J. A.	7 25				7 25
Carruthers, A.	10 75				10 75
Cavell, H. W.				5 25	5 25
Clark, A. F. B.	5 00				5 00
Clarkson, F. A.	45 00				45 00
Clawson, W. H.	29 25		34 50		63 75
Cleland, F. A.	45 00				45 00
Clemens, W. A	14 00		21 00		35 00
Clute, A. R.	13 00				13 00
Cohen, I.	9 00				9 00
Coombs, F. E			57 50		57 50
Cornish, C. A			7 50		7 50
Cowan, D.				1 50	1 50
Craigie, E. H.			34 50		34 50
Crawford, J. T			42 00		42 00
Crerar, S. R			21 00		21 00
Cringan, A. T.	21 30				21 30
Crow, J. W.	6 25				6 25
Cudmore, S. A.	12 00		35 00		47 00
Cullis, Miss W. C.	12 50				12 50

11. *Examinations.*—Continued.

NAME.	Remuneration as Examiner.	Expenses.	Presiding Examiner.	Attendant.	Total.
	$ c.	$ c.	$ c.	$ c.	$ c.
Dale, E. A			18 00		18 00
Dawes, H. F	5 50				5 50
De Beaumont, V.	18 75				18 75
Detweiler, H. K.	5 75				5 75
De Wit, N. W.	44 25				44 25
Duff, D.	19 50				19 50
Elliott, J. H.	45 00				45 00
Evans, G. A.	20 00				20 00
Fairclough, W. E.	73 00				73 00
Faull, J. H.	24 25				24 25
Ferguson, W. S	5 25				5 25
Fitzgerald, J. G.	12 75				12 75
Floyd, L. H.				5 25	5 25
Forsyth, W. O.	10 00	16 53			26 53
Fulmer, H. L.	23 75				23 75
Funnell, W. S.	20 50				20 50
Gaby, R. E	45 00				45 00
Gallie, J. G.	63 50		1 50		65 00
Gibson, A. L.	23 50				23 50
Goldie, Wm.	5 00				5 00
Graham, C. G.				4 00	4 00
Graham, R. R.	35 00				35 00
Graham, W. R	24 50				24 50
Grange, E. A. A.	14 50				14 50
Greaves, W. H.			1 50		1 50
Greenaway, C. R.				17 00	17 00
Guest, W. S.			19 50		19 50
Halbus, F.			9 00		9 00
Ham, A.	26 25				26 25
Harcourt, R.	20 00				20 00
Harris, C. L. M.	20 00	14 50			34 50
Harrison, J. W. F.	21 00	4 55			25 55
Hartman, F. A.	10 00				10 00
Hearle, E.			39 00		39 00
Heebner, C. F.	60 00				60 00
Hendrick, A. C.	45 00				45 00
Hern, F.	34 50				34 50
Hewlett, W. H.	34 95	8 25			43 20
Holmes, A. B.				21 50	21 50
Holt, G. E.	5 75				5 75
Horning, L. E.	5 38				5 38
Howitt, J. E.	24 25				24 25
Howland, G. W.	45 00				45 00
Hume, J. G.	5 50				5 50
Hunter, A.	21 00				21 00
Hunter, Miss G. H.			2 00		2 00
Hutchison, H. S.	45 00				45 00
Hutton, M.	5 25				5 25
Iveson, W. L.	21 00				21 00
Jackman, W. T.	11 25		52 00		63 25
Jamieson, Miss E. A.		2 00			2 00
Jeanneret, F. C. A.	29 00		83 50		112 50
Jones, D. H.	28 75				28 75
Jones, G. M.			27 00		27 00
Kennedy, W. P. M.	22 00				22 00
Kenrick, F. B.	7 75				7 75
Keys, Miss E.				12 00	12 00

11. *Examinations.*—Continued.

NAME.	Remuneration as Examiner.	Expenses.	Presiding Examiner.	Attendant.	Total.
	$ c.	$ c.	$ c.	$ c.	$ c.
Kihl, V.	36 50	7 50			44 00
Kilborn, L. G			1 50		1 50
King, H. M.	44 00				44 00
Kinnear, J. A.	90 00				90 00
Kittredge, R. E. L.	5 25		16 50		21 75
Lacey, A.				37 50	37 50
Lailey, Whitney			1 50		1 50
Lane, W. B.	6 50				6 50
Langford, A. L.				15 50	15 50
Le Drew, H. H.	14 50				14 50
Leitch, A.	11 00				11 00
Loudon, J. D.	45 00				45 00
Loudon, W. J.	14 33				14 33
Lund, T. H.	5 75				5 75
Mabee, O. R.	76 00				76 00
Mabee, W. J.	45 00				45 00
Macallum, A. B.	15 00				15 00
MacCallum, J. M.	45 00				45 00
MacIver, R. M.	10 50				10 50
Mackenzie, M. A.	6 00				6 00
Maclennan, D. N.	45 00				45 00
Manning, Miss A. V	5 25				5 25
Margison, O.			24 00		24 00
Marlow, F. W	45 00				45 00
Marshall, C. E.	10 50				10 50
Martin, T.	14 00	13 70			27 70
McCoy, Mrs. J.		2 00	2 00		4 00
McCubbin, W. A.	7 25				7 25
McCulloch, E. A.	14 50				14 50
McFarlane, Miss J	5 75				5 75
McIlwraith, K. C.	45 00				45 00
McIntyre, G. C.	9 00				9 00
McKellar, H. S			57 00		57 00
McLaughlin, J. F	10 75				10 75
McLennan, A. H.	6 25				6 25
McMurrich, J. P.	17 50				17 50
McPhedran, A.	73 25				73 25
McPhedran, W. F.	95 00				95 00
McQueen, D. G.		2 00	3 00		5 00
McQueen, M. J.	7 25				7 25
Meader, F. D.	11 00				11 00
Mickle, G. R.	5 00				5 00
Miller, W. Lash	10 75				10 75
Moffatt, R. C.	10 50				10 50
Muckle, J. T.	17 75				17 75
Naylor, R. W.			9 00		9 00
Nelson, H. D.	7 25				7 25
Oille, J. A.	55 00				55 00
Oliver, F. A.	10 00	8 70			18 70
Overholt, A. M.		2 00	3 00		5 00
Owen, E. T.	5 25		19 50		24 75
Palmer, E. F.	6 25				6 25
Parks, W. A.	8 25				8 25
Perry, S. W.			7 50		7 50
Piersol, W. H.	6 00				6 00
Potter, W. A.	5 25				5 25

11. *Examinations.*—Continued.

Name.	Remuneration as Examiner.	Expenses.	Presiding Examiner.	Attendant.	Total.
	$ c.	$ c.	$ c.	$ c.	$ c.
Pounder, I. R.	38 75		16 50		55 25
Powell, F. G.	21 50				21 50
Powell, N. A.	18 25				18 25
Pratt, E. J.			51 00		51 00
Price, H. W.	5 50				5 50
Primrose, A.	45 00				45 00
Pringle, J. N.	29 00				29 00
Radcliffe, S. J.		4 00	5 00		9 00
Reid, Miss M. E.				32 00	32 00
Reid, Miss M. G.			51 00		51 00
Ritchie, E. F.	13 00				13 00
Robertson, D. E.	55 00				55 00
Robertson, J. C.	5 25				5 25
Robertson, W. J.		4 00	2 00		6 00
Robinson, T. R.	6 50				6 50
Rollo, Wm.	5 25				5 25
Ross, G. W.	118 50				118 50
Ross, R. A.	10 00				10 00
Royal College of Dental Surgeons	504 75	72 65	1 25	16 25	594 90
Rutherford, W. W.		2 00	2 00		4 00
Sackville, J. P.	33 00				33 00
Satterly, J.	24 00				24 00
Saunders, D. W.	7 25				7 25
Scarrow, A. N.			24 00		24 00
Schuch, E. W.	10 00	2 30			12 30
Scott, Miss L. C.	31 50				31 50
Scott, P. L.	20 00				20 00
Scott, Wm. A.	45 00				45 00
Sexton, J. H.		2 00	2 00		4 00
Shaw, J. E.	5 25				5 25
Shuttleworth, C. B.	45 00				45 00
Simpson, L. C.	7 25				7 25
Sissons, C. B.	19 25				19 25
Smith, G. O.	35 50				35 50
Smith, W. G.			42 50		42 50
Smither, W. J.			43 50		43 50
Squirrell, W. J.	11 00				11 00
Stewart, L. B.	5 25				5 25
Tattersall, R.	21 15	1 75			22 90
Taylor, W. R.	22 25				22 25
Temple, C. A.	7 25				7 25
Thomas, H. F.		2 00	2 00		4 00
Thomson, R. B.	21 50				21 50
Tier, Wm.		2 21	2 00		4 21
Tomlinson, A. H.	6 25				6 25
Tracy, F.	5 50				5 50
Tye, W. F.	10 00				10 00
Unwin, G. H.	42 75				42 75
Uren, J. F.	45 00				45 00
Vogt, A. S.	15 00				15 00
Walker, A. C.	7 25				7 25
Walker, A. H.	6 25				6 25
Walker, T. L.	8 25				8 25
Wallace, G. L.			1 50		1 50
Wallace, J. B.			38 00		38 00
Ward, F. W.			7 50		7 50

11. *Examinations.*—Continued.

NAME.	Remuneration as Examiner.	Expenses.	Presiding Examiner.	Attendant.	Total.
	$ c.	$ c.	$ c.	$ c.	$ c.
Watson, B. P.	45 00				45 00
Watson, F. E.			3 00		3 00
Watt, J. C.			15 00		15 00
Welsman, F. S.	48 80	10 55			59 35
Wesley, R. W.	45 00				45 00
Will, J. S.	17 88				17 88
Willan, H.	26 75				26 75
Williams, W. H.			9 00		9 00
Wilson, G. E.	45 00				45 00
Wishart, D. J. G.	45 00				45 00
Woodcock, J. N.	16 25				16 25
Woodhead, W. D.			51 00		51 00
Wright, A. B.	45 00				45 00
Wright, C. H. C	5 25				5 25
Wright, E. P.				20 00	20 00
Wrong, G. M.	19 00				19 00
Young, G. S.	90 00				90 00
Zavitz, C. A.	22 00				22 00
	4,962 31	433 44	1,122 75	221 75	6,740 25

Apportionment.

	Remuneration as Examiner.	Expenses.	Presiding Examiner.	Attendant.	Total.
	$ c.	$ c.	$ c.	$ c.	$ c.
Arts	861 76		321 00	60 50	1,243 26
Medicine	2,095 00	2 00	94 50	16 00	2,207 50
Engineering and Applied Science	79 00		168 00		247 00
Education			141 00	49 50	190 50
Law	26 00		1 50		27 50
Dentistry	504 75	72 65	25 25	47 75	650 40
Pharmacy	100 00		15 00	7 50	122 50
Music	581 30	358 79	46 50		986 59
Agriculture	557 00		39 00		596 00
Veterinary Science	147 00		21 00	6 50	174 50
Junior Matriculation	10 50		250 00	34 00	294 50
	4,962 31	433 44	1,122 75	221 75	6,740 25

11. *Examinations.*—Continued.

Remuneration to Examiners (as detailed above)		$4,962 31
Presiding and attendance (as detailed above)		1,344 50
Examination supplies and sundries, including incidental expenses of Examiners ($1,223.05):		
Examiners' expenses (as detailed above)		433 44
University Press, examination books, stationery and supplies		312 80
Filling in diplomas:		
R. M. Williams, $60.40; Edith E. Shaw, $19.95		80 35
Rent of rooms and pianos at various centres:		
Alberta College, North	$10 00	
W. H. Ballard	4 90	
Mrs. J. E. Hollingshead	5 00	
Nordheimer Piano & Music Co.	12 00	
W. J. Robertson	2 50	
W. W. Rutherford	4 00	
F. Whitney Scherer	3 00	
Miss H. M. Smith	3 00	
H. F. Thomas	2 00	
		46 40
Revising lists and determining awards *re* scholarship examinations:		
A. T. DeLury, $3.10; A. Grant Brown, $2.90		6 00
Supplies for Pharmacy Examinations:		
C. F. Heebner, $65.80; P. L. Scott, $4.00		69 80
Business Systems, ledger paper		19 06
Brown Bros., mimeograph, $150.00; mimeoscope, $55.00; stencil, $4.00		209 00
City Storage, cartage		12 60
Townsend's Auto Livery & Cartage Co., collecting examination papers, etc.		30 00
Superintendent's Dept., labour		3 60
Printing examination papers and class lists ($1,969.35):		
University Press		1,969 35
		$9,499 21

12. *Convocation Expenses.*

W. R. Butcher & Co., reporting addresses		$10 00
Geo. Coles, catering		45 00
Harcourt & Son, gown and hoods		60 50
York Club, dinner to Lord Reading and Honourable E. Root		203 79
University Press, printing		95 15
Attendants, 8 at $2.00 each		16 00
		$430 44

13. *Receptions to Societies and University Visitors.*

Expenses *re* lectures given by Dr. Geo. Sarton ($166.90):		
Honorarium for lectures		$150 00
Queen's Hotel, accommodation		13 90
J. Wicksey, attendant at lecture		3 00
Expenses *re* lecture given by Prof. T. Brailsford Robertson ($268.00):		
Honorarium for lecture		250 00
York Club, accommodation		16 00
T. Motton, operating lantern at lecture		2 00
York Club, dinner to Dr. Flexner and guests		56 50
University of Toronto Faculty Union, dinners for returned soldiers		89 30
Geo. Coles, catering at reception to Ontario Educational Association		40 00
University Schools, reception to parents ($58.47):		
Prof. H. J. Crawford, disbursements		58 47
		$679 17

14. *Telephones.*

Bell Telephone Co., telephone service to 30th June, 1918		$2,597 31	
Less receipts from sub-service	$367 57		
And from slot machines	22 31		
		389 88	
		$2,207 43	
Switchboard operators ($843.91):			
Miss E. Fox, 3 weeks, 5 days at $8.75 per week, $32.50; 48 weeks, 2 days at $15.00 per week, $724.29		756 79	
Miss F. Benner, 5 weeks, 5 days at $8.50 per week, $48.57; relieving, 2 weeks at $10.00 per week, $20.00		68 57	
Miss A. Wilson, relieving, 153 hours		10 55	
Miss C. Scott, relieving, 45 hours		4 50	
Miss B. Tipping, relieving, 45 hours		3 50	
		$3,051 34	
Connecting Hart House Automatic Telephone System with University ($200.00):			
Superintendent's Dept., cable, $600.00; less received from sale of motor, $400.00		200 00	
			$3,251 34

15. *Insurance.*

Balance of premiums on general schedule brought forward from 1916-17 and charged to Revenue, 1917-18	$7,514 95	
Casual Premiums:		
North British & Mercantile Insurance Co.:		
Premium on No. 1 Queen's Park	78 50	
Premium on No. 6 Queen's Park	126 00	
Premium on grand stand, bleachers and fences at Stadium	391 25	
Premium on temporary gymnasium	128 00	
Hydro-Electric Power Commission, inspection of wiring	50 00	
		$8,288 70

16. *Advertising Expenses.*

General advertising ($776.84):		
Acta Victoriana	$20 00	
American Forestry Journal	18 30	
Canadian Almanac	15 00	
Canadian Engineer	50 00	
Canadian Forestry Journal	25 00	
Canadian Medical Association Journal	48 54	
Canadian Mining Journal	45 00	
Ontario Catholic Year Book	15 00	
The "School"	50 00	
St. Andrew's College Review	15 00	
St. Michael's College Year Book	20 00	
Torontonensis, 1918	60 00	
Trinity University Review	20 00	
University Magazine, Montreal	72 00	
University Monthly	200 00	
University Y.M.C.A. Handbook	10 00	
Upper Canada College Times	8 00	
The "Varsity"	75 00	
Vox Lycei, Hamilton	10 00	
Sundry announcements inserted by the President ($184.50):		
Evening Telegram	$49 10	
Globe Printing Co.	22 60	
Mail and Empire	22 80	
News Publishing Co.	22 20	
Toronto Daily Star	32 40	
Toronto World	35 40	
		$961 34

17. *Aid to Publications and Societies.*

Astronomical Journal	$100 00	
Conference of Canadian Universities	50 00	
Universities Bureau of the British Empire	250 00	
University Monthly	500 00	
University Engineering Society	150 00	
		$1,050 00

18. *University Studies.*

H. H. Langton, remuneration as General Editor, 12 months to 30th June	$200 00	
Printing, binding and other expenses ($464.66):		
F. A. Kirk, clerical assistance	35 00	
Miss L. M. Mason, typing copy	100 00	
University Press, printing and binding	322 74	
Freight charges	6 92	
Reprints ($90.35):		
Taylor & Francis, $30.74; less received from Prof. H. F. Dawes on account, $5.58	25 16	
Williams & Wilkins Co.	8 58	
Wistar Institute of Anatomy and Biology	56 61	
University Bulletin ($201.75):		
University Press, printing	201 75	
		$956 76

19. *Law Costs.*

John A. Paterson, K.C., taxed costs as solicitor to the University	$302 53	
Less sundry credits	2 00	
		$300 53

20. *Travelling Expenses.*

Travelling expenses of the President and Academic Staff ($1,508.56):		
F. B. Allan	$23 60	
R. W. Angus	29 60	
B. A. Bensley	23 60	
E. F. Burton	24 00	
Miss W. C. Cullis	281 13	
Sir Robert Falconer	61 34	
J. J. Mackenzie	40 60	
J. J. R. Macleod	21 04	
A. McPhedran	26 90	
C. D. Parfitt	100 00	
T. Brailsford Robertson	812 50	
E. S. Ryerson	54 25	
Travelling expenses of the Board of Governors and the Senate ($119.50):		
Board of Governors:		
Judge C. G. Snider	35 00	
Members of the Senate:		
Wm. Burt	26 05	
J. H. Coyne	20 20	
Wm. Dale	31 70	
W. N. Ponton	6 55	
		$1,628 06

22. *Roll of Service.*

Prof. G. Oswald Smith, remuneration as editor, 12 months to 30th June	$300 00	
Clerical Assistance ($722.49):		
Miss A. MacGillivray, 12 months to 30th June	600 00	
Miss I. Jones, 21½ days at $2.40 per day, $51.60; 18 hours at 30c. per hour, $5.40	57 00	

22. *Roll of Service.*—Continued.

Miss M. R. Phillips, 141 hours at 31c. per hour	43 71	
Miss E. Hargreaves, 66 hours at 33c. per hour	21 78	
Office supplies, postage, printing and incidentals, ($2,071.63):		
The Bursar, postage supplied	291 00	
Grand & Toy, tabs	15 00	
Office Specialty Mfg. Co., cases and folders	27 37	
Prof. G. Oswald Smith, petty disbursements, $12.49; travelling expenses, $10.00	22 49	
Robert M. Williams, lettering tablets	53 85	
University Press, printing and stationery	1,612 55	
Superintendent's Dept., labour, $24.03; material, $7.52	31 55	
Sundry newspaper announcements:		
Evening Telegram	1 00	
Globe Printing Co.	3 70	
Mail and Empire	3 74	
News Publishing Co.	3 66	
Toronto Daily Star	1 98	
Toronto World	3 74	
		$3,094 12
		$141,694 98

II. Faculty of Arts.

23. *Salaries.*

(1) Departments in University of Toronto ($171,906.79).

Mathematics.

Professors, each 12 mos. to 30th June:		
A. Baker, (also Dean of the Faculty)	$4,000 00	
A. T. DeLury	3,800 00	
M. A. Mackenzie	3,500 00	
J. C. Fields	3,500 00	
S. Beatty, Assistant Professor, 12 mos. to 30 June	2,300 00	
I. R. Pounder, Lecturer (Sessional)	1,600 00	
T. H. Milne, Fellow (Sessional) at $500.00 (resigned, 31 December)	187 50	
		$18,887 50

Mechanics.

W. J. Loudon, Professor, 12 mos. to 30 June	$3,800 00	
		$3,800 00

Physics.

J. C. McLennan, Professor (war service, full pay)	$4,000 00	
E. F. Burton, Associate Professor, 12 mos. to 30 June	2,800 00	
Assistant Professors:		
L. Gilchrist, at $2,200 (war service, half pay)	1,100 00	
J. Satterly, $2,200; also Assistant Director of Undergraduate Laboratory, $500; 12 mos. to 30 June	2,700 00	
H. A. McTaggart, Lecturer (Sessional) at $1,800.00 (war service, half pay)	900 00	
H. F. Dawes, Special Lecturer (Sessional)	550 00	
Assistant Demonstrators (Sessional):		
R. C. Dearle	1,200 00	
D. S. Ainslie	1,000 00	
D. A. Keys	1,000 00	
Miss E. L. Bishop	500 00	
Miss W. Foster	500 00	
D. S. Fuller	500 00	
S. McLean	500 00	
Miss F. M. Quinlan	500 00	
R. V. Zumstein	500 00	

23. *Salaries.*—Continued.

Miss A. T. Reed, Class Assistant (Sessional) and Stenographer, at $1,000 combined salary, (on leave of absence from 1 March without salary)	666 66	
Miss M. E. Lowrey, Class Assistant (substitute) 18 February to 1 June at $12.00 per week	180 00	
T. S. Plaskett, Mechanician, 12 mos. to 30 June	1,350 00	
Assistant Mechanicians:		
J. W. Lawson, 4 mos. to 31 Oct. at $900 per annum (resigned)	300 00	
J. R. Dowdell, 8 mos. from 1 Nov. at $900 per annum	600 00	
G. W. Kiernan, 1 July to 31 Oct. at $450 per annum	150 00	
F. Boland, 1 Dec. to 20 April at $7 per week	154 64	
F. D. Mezen, Glass-blower, 283 hours at $1.20	339 60	
P. Blackman, Lecture and Laboratory Assistant (Sessional) at $1,000 (war service, part pay)	100 00	
		$22,090 90

Astro-Physics.

C. A. Chant, Associate Professor, 12 mos. to 30 June	$3,200 00	
J. P. Henderson, Class Assistant (Sessional)	500 00	
Assistants (Sessional):		
F. L. Blake	100 00	
B. Sadowski	50 00	
N. E. Sheppard	50 00	
		$3,900 00

Geology.

A. P. Coleman, Professor, 12 mos. to 30 June	$4,000 00	
W. A. Parks, Professor of Palaeontology, 12 mos. to 30 June	3,400 00	
A. MacLean, Lecturer (Sessional)	2,000 00	
Laboratory Attendant (Sessional):		
R. Wilson, 6½ mos. to 30 April, at $60 per mo.	390 00	
F. A. Blazey, 3 days	5 34	
		$9,795 34

Mineralogy.

T. L. Walker, Professor, 12 mos. to 30 June	$3,800 00	
A. L. Parsons, Assistant Professor, 12 mos. to 30 June	2,500 00	
Ellis Thomson, Lecturer (Sessional)	1,500 00	
Laboratory Attendants (Sessional):		
W. Allingham (war service) payment to mother at $10 a mo. for 7 mos.	70 00	
H. George, substitute, 7 mos. at $50	350 00	
		$8,220 00

Chemistry.

W. R. Lang, Professor at $3,800 (war service, half pay)	$1,900 00	
W. S. Funnell, Lecturer (Sessional) substitute	1,600 00	
W. Lash Miller, Professor of Physical Chemistry, 12 mos. to 30 June	3,800 00	
Associate Professors:		
F. B. Kenrick, at $3,200 (war service, half pay)	1,600 00	
F. B. Allan, Organic Chemistry, 12 mos. to 30 June	3,200 00	
Assistants (Sessional):		
E. I. Fulmer	800 00	
Miss S. N. Boyd	600 00	
R. Fetzer	600 00	
M. E. Smith	550 00	
W. J. Morrison	500 00	
E. J. Repath, Laboratory Assistant (with rooms, heat and light as caretaker of Chemical building), 12 mos. to 30 June, $800; Lecture Assistant (Sessional), $200	1,000 00	
A. Crosswell, Laboratory Attendant, 12 mos. to 30 June	400 00	
		$16,550 00

23. *Salaries.*—Continued.

Biology.

B. A. Bensley, Professor, 12 mos. to 30 June	$3,500 00	
Associate Professors, each 12 mos. to 30 June:		
W. H. Piersol	2,900 00	
E. M. Walker	2,500 00	
A. G. Huntsman, Marine Biology (without salary)	.....	
Lecturers (Sessional):		
W. A. Clemens, Elementary Biology	1,500 00	
A. F. Coventry, Vertebrate Embryology, at $1,700 (war service, half pay)	850 00	
E. H. Craigie, Demonstrator (Sessional)	800 00	
M. D. McKichan, Temporary Assistant in Embryology (Sessional—paid also in Therapeutics)	500 00	
Class Assistants (Sessional):		
A. Isaacson	260 00	
A. G. McPhedran	200 00	
N. D. Morris	80 00	
W. R. Quinn	60 00	
C. O. Broad	40 00	
Miss N. H. C. Ford	40 00	
N. Found	40 00	
W. E. Henry	40 00	
Miss C. A. Brown	20 00	
H. G. Willson	20 00	
Miss B. K. Mossop, Assistant in Systematic Biology, (Sessional—half time)	350 00	
Miss D. Fraser, Preparator (Sessional)	500 00	
A. Pride, Sub-Curator of Biological Museum, 12 mos. to 30 June	850 00	
E. B. S. Logier, Museum Assistant and Cataloguer (Sessional —half time)	400 00	
Miss E. Mason, Office Assistant, 12 mos. to 30 June	600 00	
Laboratory Attendants (Sessional), at $50 per mo.:		
J. A. C. Maclean, 10 to 31 October	36 66	
W. J. Brown, 4 Nov. to 30 June	393 33	
Mrs. Roberts, occasional service	16 34	
		$16,496 33

Botany.

Associate Professors, each 12 mos. to 30 June:		
J. H. Faull	$3,200 00	
R. B. Thomson	2,800 00	
Assistant Professors:		
C. D. Howe, 12 mos. to 30 June at $2,500, of which $1,250 charged to Forestry	1,250 00	
J. H. White, on leave of absence without salary (paid part time in Forestry	.....	
Demonstrators (Sessional):		
Miss J. McFarlane	900 00	
N. C. Hart, at $800 (resigned 31 Dec.)	300 00	
Miss L. V. Baker, Fellow (Sessional)	500 00	
A. W. McCallum, Assistant (Sessional)	300 00	
Class Assistants (Sessional):		
Miss C. S. McCullough	60 00	
G. H. Duff	50 00	
Miss J. G. Wright, Technical Assistant (Sessional)	800 00	
A. Simpson, Gardener (with living quarters), 12 mos. to 30 June	900 00	
Laboratory Attendants:		
J. Armstrong, 9½ mos. to 15 April at $350 per annum..	277 06	
Occasional service:		
Mrs. Musgrove, $15; G. Ward, $10	25 00	
		$11,362 06

23. *Salaries.*—Continued.

Bio-Chemistry.

A. B. Macallum, Professor (on leave of absence)		
Lecturers (Sessional):		
E. J. Baumann, at $1,800 (resigned 31 Dec.)	$900 00	
Dr. Olive Cameron, substitute (Easter Term)	750 00	
Miss C. J. Fraser, Assistant (Sessional)	500 00	
Fellows (Sessional), at $500:		
C. P. Lathrop	500 00	
Miss A. Muldrew	500 00	
Laboratory Assistants:		
J. Lowndes, at $650 (war service, balance after payment of substitute)	150 00	
F. W. Ward, substitute, 8 mos. salary	500 00	
A. E. Giddens, 12 mos. to 30 June (paid also in Physiology)	700 00	
		$4,500 00

Physiology.

Lecturers (Sessional):		
F. A. Hartman, $2,000; bonus, $500	$2,500 00	
Dr. Winifred Cullis (Easter Term)	1,500 00	
P. M. O'Sullivan	800 00	
Fellows (Sessional) at $500:		
Mrs. W. K. Fraser	500 00	
L. G. Kilborn (paid also as Laboratory Assistant)	500 00	
Mrs. M. E. McFarlane, Assistant, 12 mos. to 30 June	800 00	
Mechanician, at $100 per month:		
John Hay, 1 July to 31 Aug. (resigned)	200 00	
L. W. Taylor, 15 Sept. to 24 Nov. (resigned)	230 00	
F. W. Claasens, 26 Nov. to 30 June	716 66	
Laboratory Assistant:		
F. L. Robinson, at $750 (war service, balance after payment of substitute)	100 00	
L. G. Kilborn, substitute, 3 mos. to 30 Sept. at $650 per annum (paid also as Fellow)	162 50	
H. Watkins, substitute, 9 mos. from 1 Oct. at $650 per annum	487 50	
Mrs. Rachel Green, Cleaner, 52 weeks, less 4 days, at $6 per week	308 00	
A. E. Giddens, Laboratory Attendant (Sessional—paid also in Bio-Chemistry)	100 00	
		$8,904 66

History and Ethnology.

G. M. Wrong, Professor, 12 mos. to 30 June	$4,000 00	
Lecturers (Sessional), each, war service, half pay:		
R. Hodder Williams, at $2,000	1,000 00	
G. M. Smith, at $1,700	850 00	
Vincent Massey, at $500	250 00	
W. S. Wallace, at $500	250 00	
W. P. M. Kennedy, substitute Lecturer (Sessional—paid also in English)	1,250 00	
S. H. Hooke, Special Lecturer (Sessional)	750 00	
Miss Marjorie Reid, Instructor (Sessional)	800 00	
		$9,150 00

Comparative Philology.

A. J. Bell, Professor, 12 mos. to 30 June	$600 00	
		$600 00

Italian and Spanish.

Professors, each 12 mos. to 30 June:		
M. A. Buchanan	$5,200 00	
J. E. Shaw	3,100 00	

23. *Salaries.*—Continued.

A. Lipari, Lecturer (Sessional), at $1,500 (war service from 31 Dec., half pay)	750 00	
Instructors (Sessional):		
M. Catalano (war service, half pay)	450 00	
B. F. Swedelius, temporary (Easter Term)	400 00	
N. Cacciapuoti, temporary (Easter Term)	350 00	
		$8,250 00

Philosophy and Psychology.

J. G. Hume, Professor of the History of Philosophy, 12 mos. to 30 June	$3,800 00	
G. S. Brett, Professor of Philosophy, 12 mos. to 30 June (part time)	2,200 00	
A. H. Abbott, Associate Professor at $3,200 (war service, half pay—paid also as Secretary, University Extension)	1,600 00	
E. A. Bott, Lecturer in Philosophy and Assistant in Psychological Laboratory (Sessional), at $1,500 (war service, half pay)	750 00	
Assistant Professors, each 12 mos. to 30 June:		
W. G. Smith, Psychology	2,500 00	
T. R. Robinson, Philosophy	2,500 00	
E. J. Pratt, Demonstrator (Sessional)	1,100 00	
C. M. Hincks, Assistant in Psychological Laboratory (Sessional —paid also in Psychiatry)	200 00	
		$14,650 00

Political Science.

James Mavor, Professor, 12 mos. to 30 June	$4,000 00	
R. M. MacIver, Associate Professor, 12 mos. to 30 June	2,700 00	
Assistant Professors, Political Economy, each 12 mos. to 30 June:		
S. A. Cudmore	2,100 00	
W. T. Jackman	2,100 00	
A. H. F. Lefroy, Professor of Roman Law, Jurisprudence and History of English Law, 12 mos. to 30 June, $1,300; additional lectures (Sessional) in Federal, English and Colonial Constitutional Law, $700	2,000 00	
J. D. Falconbridge, Lecturer in Commercial and International Law (Sessional)	600 00	
		$13,500 00

History of Industrial Art.

C. T. Currelly, Professor (part time), 5 mos. from 1 February at $3,000 per annum (transferred from Museum)	$1,250 00	
		$1,250 00

(2) *Departments in University College* ($69,700).

Greek.

M. Hutton, Professor, 12 mos. to 30 June (paid also as Principal of University College)	$4,000 00	
A. Carruthers, Associate Professor, 12 mos. to 30 June	3,200 00	
		$7,200 00

Latin.

J. Fletcher, Professor (obit. 15 July), salary to 31 December at $4,000 per annum, paid to widow	$2,000 00	
Assistant Professors, each 12 mos. to 30 June:		
G. Oswald Smith	2,500 00	
E. A. Dale (transferred from Ancient History)	2,100 00	
Lecturers (Sessional):		
David Duff	1,800 00	
W. D. Woodhead	1,500 00	
		$9,900 00

23. *Salaries.*—Continued.

Ancient History.

W. S. Milner, Professor, 12 mos. to 30 June	$3,800 00	
Lecturers (Sessional):		
A. Grant Brown	1,900 00	
C. N. Cochrane, at $1,600 (war service, half pay)	800 00	
		$6,500 00

English.

W. J. Alexander, Professor, 12 mos. to 30 June	$4,000 00	
D. R. Keys, Associate Professor, Anglo-Saxon, 12 mos. to 30 June	3,200 00	
M. W. Wallace, Professor at $3,200 (war service, half pay)	1,600 00	
Lecturers (Sessional):		
W. P. M. Kennedy, substitute (paid also in History)	750 00	
W. H. Clawson	2,000 00	
A. F. B. Clark, at $1,600 (resigned 31 Dec.)	800 00	
R. K. Gordon, Fellow (Sessional)	500 00	
Miss M. C. Wrong, Temporary Assistant (Sessional—paid also as Resident Head, U. C. Women's Union)	250 00	
		$13,100 00

French.

Professors, each 12 mos. to 30 June:		
J. Home Cameron	$3,400 00	
J. S. Will	3,200 00	
St. Elme de Champ, Associate Professor, 12 mos. to 30 June	2,900 00	
Lecturers (Sessional):		
F. C. A. Jeanneret (paid also as Registrar of University College)	1,800 00	
H. S. McKellar	1,500 00	
Instructors (Sessional), each war service (full pay):		
P. Balbaud	800 00	
L. A. Bibet	500 00	
		$14,100 00

German.

G. H. Needler, Professor at $3,500 (war service, half pay)	$1,750 00	
B. Fairley, Associate Professor, 12 mos. to 30 June	2,700 00	
P. Toews, Assistant Professor at $2,300 (absent on sick leave, part pay)	1,000 00	
G. E. Holt, Lecturer (Sessional)	1,300 00	
		$6,750 00

Oriental Languages.

Professors, each 12 mos. to 30 June:		
W. R. Taylor	$3,400 00	
J. A. Craig	3,200 00	
		$6,600 00

Ethics.

F. Tracy, Professor, 12 mos. to 30 June	$3,400 00	
		$3,400 00

University College, General.

M. Hutton, Principal, 12 mos. to 30 June (paid also in Greek)	$1,000 00	
F. C. A. Jeanneret, Registrar, 12 mos. to 30 June (paid also in French)	500 00	
Miss C. Tocque, Registrar's Clerk, 12 mos. to 30 June	650 00	
		$2,150 00
		$241,606 79

24. Retiring Allowances.

Professor R. Ramsay Wright, retiring allowance, 3 mos. to 30 Sept. at $2,750 per annum	$687 50	
Miss L. Salter, retiring allowance, 12 mos. to 30 June	700 00	
		$1,387 50

25. Main Building.

Heat and light (supplied from Central Power Plant):		
Gas, city current and occasional fuel ($19.72):		
Consumers' Gas Co.	$19 72	
Water ($77.41):		
City Treasurer	77 41	
Caretaker's supplies ($303.92):		
Superintendent's Dept., labour, $11.77; material, $292.15	303 92	
Cleaning ($1,802.31):		
Allen Mfg. Co., laundry	12 06	
Canadian Cleaning Co., cleaning windows	55 00	
Superintendent's Dept., labour	1,735 25	
Repairs and renewals ($2,693.01):		
Card & McConnell, exterminating rats	10 00	
T. Eaton Co., oak flooring, $188.10; linoleum, $44.10	232 20	
Macey Office Equipment Co., chairs	48 00	
A. Matthews, repairs to roof	242 43	
Photography, Dept. of, plans	80	
R. Robertson & Sons, masonry	68 25	
Routery Bros., plastering	25 95	
J. M. Wighton, masonry	119 50	
Superintendent's Dept., labour, $1,276.80; material, $669.08	1,945 88	
	$4,896 37	
Less sundry credits: cleaning, $71.70; repairs, $75.24	146 94	
	$4,749 43	
Janitor, C. E. Bradshaw, 12 months to 30 June	1,900 00	
Messenger Service:		
At $3.50 to $6.50 per week:		
Myrtle Bradshaw, 52 weeks	321 15	
Bessie Tipping, 35 weeks, 3 days	139 50	
Jack Cohen, 24 weeks, 4 days	131 00	
James Wallace, 14 weeks	87 49	
C. Scott (paid also in Superintendent's Office), 13 weeks, 2 days	66 43	
H. Pamplin, 8 weeks, 4 days	42 85	
Car fares of messengers, etc.	25 42	
		$6,563 27

26. Biological Building and Department.

(*a*) Maintenance of Building:		
Heat and light (supplied from Central Power Plant):		
Gas, city current and occasional fuel ($53.36):		
Consumers' Gas Co.	$53 36	
Water ($31.97):		
City Treasurer	31 97	
Caretaker's supplies ($138.84):		
Superintendent's Dept., labour, $2.58; material, $136.26	138 84	
Cleaning ($648.24):		
Canadian Cleaning Co., cleaning windows	35 00	
Superintendent's Dept., labour	613 24	
Repairs and renewals ($1,280.23):		
Wm. Bartlett & Son, shades	$15 33	
Card & McConnell, exterminating rats	10 00	
City Treasurer, elevator license	5 00	
W. E. Dillon & Co., repairs to roof	123 83	
A. Matthews, repairs to roof	85 04	

26. *Biological Building and Department.*—Continued.

Photography, Dept. of, plans		40	
J. M. Wighton, masonry		48 65	
Superintendent's Dept., labour, $578.37; material, $413.61		991 98	
		$2,152 64	
Less sundry credits: repairs		37 06	
		$2,115 58	
Caretaker, D. J. Clark (with rooms, heat and light), 12 months to 30 June		800 00	
Attendant, Anatomical Section, H. McCormick, 12 months to 30 June (paid also in Anatomy)		400 00	
			$3,315 58
(*b*) Maintenance of Department:			
Laboratory and Lecture Room supplies ($310.40):			
Art Metropole, supplies		$10 63	
Bausch & Lomb Optical Co., chemicals		8 40	
Prof. B. A. Bensley, disbursements: Laboratory supplies, stationery, etc., $32.55; animals and food, $7.54; postage and express, $5.16; car fares and sundries, $4.75		50 00	
T. Eaton Co., soap and towels		10 89	
E. Harris Co., drawing supplies		10 00	
Ingram & Bell, chemicals		4 53	
Inland Revenue Dept., methylated spirits		26 03	
Lyman Bros. & Co., chemicals		5 25	
Ontario Game and Fisheries Dept., fish		7 30	
Photography, Dept. of, slides		6 25	
Students' Book Dept., books		28 30	
Wards' Natural Science Establishment, slides		19 97	
W. Lloyd Wood, chemicals		33 45	
University Press, printing and stationery		62 65	
Freight charges		3 95	
Superintendent's Dept., labour, $5.58; material, $17.22.		22 80	
Museum specimens, supplies and catalogue ($235.11):			
Miss M. E. Hunt, specimens		20 00	
W. S. Jackson, specimens		10 00	
Lyman Bros. & Co., chamois		3 57	
Office Specialty Mfg. Co., card sections		159 50	
Pilkington Bros., glass		3 36	
University Press, portfolio		4 75	
Freight charges		16 33	
Superintendent's Dept., labour, $13.37; material, $4.23.		17 60	
Marine and Lake Laboratories ($130.10): Expenses to and from stations collecting: Prof. E. M. Walker, travelling expenses.. $150 00; Less returned, unused of advance, 1916-17. 19 90		130 10	
Students' Laboratory supplies ($621.22):			
Bausch & Lomb Optical Co., chemicals		2 70	
W. R. Brock Co., cloth		88 25	
Brown Bros., stencil		4 00	
D. J. Clark, worms		2 00	
Corey Bros., lampreys		14 50	
J. J. Dickson, frogs		11 25	
Wm. Fenton, guinea pigs		11 25	
W. J. R. Fowler, rabbits		35 00	
Ingram & Bell, chemicals		5 02	
Inland Revenue Dept., methylated spirits		44 02	
C. J. Kerr, rabbits		27 00	
E. B. S. Logier, rabbits		12 75	
Lyman Bros. & Co., chemicals		5 32	
Marine Biological Laboratory, material		64 37	
Powers & Powers, slide		2 05	
S. G. Sams, rabbits		1 50	

26. *Biological Building and Department.*—Continued.

Synthetic Drug Co., rabbits	8 75	
F. Thibault, stain	2 00	
W. Lloyd Wood, chemicals	44 50	
University Press, drawing pads and stationery	203 05	
Freight charges	5 30	
Superintendent's Dept., material	26 64	
New microscopes and apparatus ($128.77):		
Bausch & Lomb Optical Co., knife	3 50	
Day Sign Co., numbering microscopes	14 00	
T. Eaton Co., scale	4 55	
Grand & Toy, punch and sharpener	5 65	
T. S. Plaskett, repairs	10 50	
Charles Potter, glasses	5 50	
Pressure Cooker Co., cooker	13 12	
Spencer Lens Co., microscopes	69 25	
Freight charges	2 70	
Furnishings, departmental fittings and incidentals ($458.78):		
Allen Mfg. Co., laundry	24 91	
The Bursar, postage supplied	7 00	
Canada Furniture Manufacturers, chairs	5 44	
T. Eaton Co., crocks and towels	49 70	
Office Specialty Mfg. Co., trays	2 21	
Remington Typewriter Co., typewriter, $70.00; inspection, $13.50	83 50	
G. H. Robinson, cushions	6 75	
University Press, cards	3 65	
Superintendent's Dept., labour, $158.73; material, $116.89	275 62	
Messenger service ($264.00):		
P. Brangwin, 12 weeks at $5.00 per week, $60.00; 34 weeks at $6.00 per week, $204.00	264 00	
Alterations in Laboratory ($599.23):		
Superintendent's Dept., labour, $361.05; material, $238.18	599 23	
New Laboratory equipment ($1,149.84):		
Superintendent's Dept., labour, $730.85; material, $418.99	1,149 84	
	$3,897 45	
Less sundry credits:		
Royal College of Dental Surgeons, embalming rabbits $25 00		
Inland Revenue Dept., barrels returned 8 00		
	33 00	
		$3,864 45
		$7,180 03

27. *Sub-Department of Botany.*

Apparatus and equipment ($835.71):		
Bausch & Lomb Optical Co., dishes and glassware	$40 06	
T. Eaton Co., cork carpet	6 20	
General Electric Co., motor	21 17	
Gustavius D. Jullen, lathe, etc.	400 60	
Photography, Dept. of, slides	2 00	
T. S. Plaskett, pump	118 00	
Spencer Lens Co., camera and lamp	94 88	
Prof. R. B. Thomson, petty disbursements	6 90	
Topley Co., repairs	38 60	
Toronto Hydro Electric System, heater	5 50	
Freight charges	14 30	
Superintendent's Dept., labour, $17.70; material, $69.80	87 50	
Laboratory and office supplies ($465.35):		
Bausch & Lomb Optical Co., alcohol, etc.	78 53	
A. R. Bechtel, plants	5 05	
The Bursar, postage supplied	11 00	

27. *Sub-Department of Botany.*—Continued.

J. F. Hartz Co., alcohol	9 80
W. Holbrook, slides	3 60
Ingram & Bell, bottles	28 60
Inland Revenue Dept., methylated spirits	25 90
Marine Biological Laboratory, plants	15 06
Photography, Dept. of, micrographs and prints	17 45
Plant Study Co., material	17 09
Robert Simpson Co., towelling	3 00
Telfer Mfg. Co., cases	8 25
Topley Co., threads	4 20
Prof. R. B. Thomson, disbursements: Car fares and postage, $28.28; stationery, books, etc., $20.37; laboratory supplies, $12.74; flowers, etc., $9.93; typewriting, $3.00; express and customs, $2.49; telegrams and cables, $2.34	79 15
United Typewriter Co., inspection	5 25
University Press, drawing paper and stationery supplies	128 50
Freight charges	1 88
Superintendent's Dept., material	23 04
Museum and Herbarium supplies ($315.88):	
E. Ardley, repairs	8 71
Art Metal Construction Co., case	122 65
E. Bartholomew, plants	15 52
F. S. Collins, plants	10 08
Miss E. Criddle, plants	4 90
Inland Revenue Dept., methylated spirits	20 90
Photography, Dept. of, slides	22 90
Royal Ontario Museum of Archæology, specimen	80
J. E. Tilden, plants	59 31
University Press, paper and labels	25 40
Freight charges	23 71
Superintendent's Dept., material	1 00
Assistance in Museum and Herbarium ($378.15):	
Miss M. E. Currie, 120 hours at 50c. per hour	60 00
G. H. Duff, 50 hours at 50c. per hour (paid also on salary list)	25 00
N. C. Hart, 126 hours at 50c. per hour (paid also on salary list)	63 00
Miss J. McFarlane, 135½ hours at 50c. per hour (paid also on salary list)	67 75
Miss I. Underhill, 374 hours at 35c. per hour	162 40
Botanic Garden and Greenhouse supplies, material and labour in connection ($1,164.25):	
Aikenhead Hardware, mowers, block and chain, etc.	36 21
W. Calder & Sons, forgings	3 75
T. Eaton Co., label holders	3 60
Globe-Wernicke Co., card sections	48 50
Goodyear Tire & Rubber Co., hose	28 95
Lager & Hurrell, specimens	25 65
Thos. J. Lane, seeds	2 47
Macmillan Co. of Canada, book	6 00
T. Manton, roots	4 00
New York Botanical Garden, book	10 08
Ontario Lime Co., sand and cement	31 00
W. F. Petry, lumber and building material	86 89
Ryder & Son, seeds	11 38
Sheridan Nurseries, plants	9 30
Prof. R. B. Thomson, disbursements: Books, etc., $18.13; hardware, oils, etc., $15.02; manure, $8.00; car fare and postage, $7.27; seeds, etc., $6.10; lumber, $5.65; board, etc., for labourer, $5.50; collecting material, $3.68; sundries, $8.56	77 91
J. M. Wighton, bricks	5 00
University Press, cards	5 25
Petty items (3)	5 05
Freight charges	1 90

27. *Sub-Department of Botany.*—Continued.

Superintendent's Dept., labour, $15.02; material, $63.31....	78 33	
Miss L. V. Baker, 87 hours at 50c. per hour	43 50	
W. Brown, 668 hours at 30c. per hour	200 40	
G. Coull, 148 hours at 37c. per hour	54 76	
N. C. Hart, 60 hours at 40c. per hour (paid also on salary list)	24 00	
C. Huston, 292 hours at 37c. per hour	108 04	
Miss C. S. McCullough, 50 hours at 40c. per hour	20 00	
J. Simpson, 3 months, 8 days, at $65.00 per month	212 33	
Geo. Ward, work in greenhouse (paid also on salary list)..	20 00	
Clerical assistance ($254.35):		
Miss I. Underhill, 701 hours at 35c. per hour	245 35	
Miss C. Tocque, typing circulars	9 00	
Alterations in Laboratory ($473.57):		
Batts Ltd., frames	12 60	
W. F. Petry, lumber	45 00	
J. M. Wighton, excavating and masonry	317 00	
Superintendent's Dept., labour, $46.10; material, $52.87...	98 97	
	$3,887 26	
Less received from students for breakages	72 00	
		$3,815 26

28. *Department of Bio-Chemistry.*

Maintenance, laboratory and office supplies ($1,488.72):		
Allen Mfg. Co., laundry	$7 04	
Belding Paul Corticelli, silk	8 00	
Burroughs Adding Machine Co., adding machine	171 50	
T. Eaton Co., cups and frames	11 15	
Eimer & Amend, glassware, supplies and apparatus	504 16	
Grand & Toy, ink	2 50	
Grasselli Chemical Co., chemicals	81 93	
Harris Abattoir Co., eggs	13 50	
Geo. M. Hendry Co., crucibles	4 32	
Prof. A. Hunter, disbursements:		
Laboratory supplies, $31.97; food for animals, $6.94; car fares and postage, $3.35; glass-blowing, $3.15; books, $3.00	48 41	
Ingram & Bell, chemicals and glassware	348 29	
Inland Revenue Dept., methylated spirits	47 57	
Lake Simcoe Ice Supply Co., ice	50 25	
G. E. Leworthy, burettes	17 75	
Lyman Bros. & Co., chemicals	50 22	
Lymans, Ltd., Montreal, filter paper	27 55	
Ontario Rubber Co., tubing	4 66	
United Typewriter Co., inspection	6 00	
University Press, stationery and supplies	99 30	
Freight charges	35 00	
Superintendent's Dept., labour, $62.29; material, $62.60...	124 89	
	$1,663 99	
Less received from students for breakages, etc. $143 30		
Special Research, Physiotherapy, chemicals and glassware supplied 31 97		
	175 27	
		$1,488 72

29. *Physiological Department.*

Maintenance, laboratory and office supplies ($1,138.57):		
Aikenhead Hardware, hardware	$87 33	
J. T. Baker Chemical Co., chemicals	40 57	
British Aluminium Co., aluminium	6 00	
Canadian Carbonate Co., gas	6 00	

29. *Physiological Department.*—Continued.

Canadian General Electric Co., electrical supplies	48 47	
Christie, Brown & Co., dog biscuit	64 46	
Eimer & Amend, pipettes, etc.	90 12	
J. A. Fontaine, frogs	62 50	
Mrs. Dora Freeland, animals	17 75	
W. Freeland, animals, $52.75; meat, $19.00	71 75	
Prof. A. Hunter, disbursements:		
Animals, etc., $11.50; chemicals and laboratory supplies, $6.15; key blanks, etc., $5.60; food for animals, $3.46; car fare, postage, etc., $1.91	28 62	
Ingram & Bell, supplies	15 81	
G. E. Leworthy glass-blowing	12 90	
Lyman Bros. & Co., chemicals	111 82	
Prof. A. B. Macallum, disbursements:		
Animals, etc., $12.90; chemicals and laboratory supplies, $4.11; car fare and postage, $3.20; express, $2.23; food for animals, $1.92; hardware, oils, etc., $1.85	26 21	
Prof. J. J. Mackenzie, disbursements:		
Chemicals and laboratory supplies, $44.09; animals, etc., $26.00; laundry, $22.15; car fares and postage, $17.20; hardware, oils, etc., $7.75; food for animals, $7.39; sundries, $5.12	129 70	
Ontario Rubber Co., tubing	7 88	
Charles Potter, gas	15 00	
Robert Simpson Co., cloth and supplies	35 90	
Syntbetic Drug Co., rabbits, $21.75; cylinders and repairs, $26.60	48 35	
Arthur H. Thomas Co., syringes and needles	13 17	
Toronto Dog & Cat Hospital, animals	90 25	
University Press, stationery and supplies	44 15	
Freight charges	13 00	
Superintendent's Dept., material	50 86	
Apparatus ($480.63):		
Aikenhead Hardware, tools	132 43	
Goldsmiths' Stock Co. of Canada, watches	19 25	
Harvard Apparatus Co., apparatus	133 91	
Ingram & Bell, apparatus	58 50	
James Robertson Co., piping	33 51	
A. R. Williams Machinery Co., lathe parts	101 65	
Freight charges	1 38	
		$1,619 20

30. *Chemical Building and Department.*

(*a*) Maintenance of Building:		
Heat and light (supplied from Central Power Plant):		
Gas, city current and occasional fuel ($144.71):		
Consumers' Gas Co.	$144 71	
Water ($46.45):		
City Treasurer	46 45	
Caretaker's supplies ($66.65):		
Superintendent's Dept., labour, $2.34; material, $64.31.	66 65	
Cleaning ($741.88):		
Allen Mfg. Co., laundry	5 13	
Canadian Cleaning Co., cleaning windows	12 00	
Superintendent's Dept., labour	724 75	
Repairs and renewals ($834.31):		
Wm. Bartlett & Son, shades	35 64	
A. Matthews, repairs	11 85	
Photography, Dept. of, plans	30	
Superintendent's Dept., labour, $393.13; material, $393.39	786 52	
		$1,834 00
Caretaker, E. Repath (paid as laboratory attendant, with rooms, fuel and light, chargeable against building and included in above).		

30. *Chemical Building and Department.*—Continued.

(*b*) Maintenance of Department:		
Chemicals, glassware and apparatus ($1,515.67):		
Aikenhead Hardware, hardware	$11 79	
Aikenhead Hardware, hardware	$11 79	
Associated Industries of Japan, glassware and apparatus	185 14	
J. T. Baker Chemical Co., chemicals	70 47	
Bausch & Lomb Optical Co., glassware and filter paper	253 63	
R. Bigley Mfg. Co., stove	13 65	
Brown Engineering Corporation, pump	7 50	
The Bursar, postage supplied	13 00	
Canada Metal Co., zinc	5 75	
Canadian Carbonate Co., gas	3 00	
T. Eaton Co., radiator and utensils	13 93	
Fletcher Mfg. Co., apparatus and repairs	80 40	
Kentucky Tobacco Product Co., chemicals	11 82	
Lyman Bros. & Co., chemicals	41 14	
W. F. Maas, oil	2 15	
Prof. W. Lash Miller, disbursements: Laboratory supplies and sundries, $36.22; hardware, oils, etc., $10.45; cartage and freight, $5.18; telegrams, $1.47	53 32	
Moyes Chemical Co., cartridges	12 00	
O'Keefe Brewery Co., malt	3 00	
Office Specialty Mfg. Co., cases	4 86	
Ontario Cork Co., corks	12 97	
Ontario Rubber Co., tubing	3 50	
Fred. J. Perrin, matches	22 40	
Photography, Dept. of, slides	11 00	
University of Illinois, chemicals	192 30	
F. Wehrle & Son, brushes	55 08	
University Press, printing and stationery	20 45	
Freight charges	28 11	
Superintendent's Dept., labour, $230.73; material, $154.58	385 31	
	$1,517 67	
Less received from sale of material	2 00	
		$1,515 67
		$3,349 67

31. *Sub-Department of Physical Chemistry.*

Chemicals, apparatus and maintenance ($277.87):		
J. T. Baker Chemical Co., chemicals	$61 97	
Bausch & Lomb Optical Co., glassware	39 31	
W. R. Fetzer, charts	10 00	
J. S. Giles, alcohol	8 75	
G. E. Leworthy, glass-blowing	10 00	
F. D. Mezen, apparatus	17 40	
Sagamo Electric Co. of Canada, apparatus	58 85	
Spencer Lens Co., counting chamber	5 62	
Toronto Hydro-Electric System, heater	24 50	
University Press, paper	4 00	
Freight charges	65	
Superintendent's Dept., labour, $11.44; material, $25.38	36 82	
		$277 87

32. *Physics Building and Department.*

(*a*) Maintenance of Building:		
Heat and light (supplied from Central Power Plant:		
Gas, city current and occasional fuel ($2.56):		
Consumers' Gas Co.	$2 56	
Water ($288.84):		
City Treasurer	288 84	
Caretaker's supplies ($77.71):		
Superintendent's Dept., labour, 50c.; material, $77.21	77 71	

32. *Physics Building and Department.*—Continued.

Cleaning ($873.88):		
Allen Mfg. Co., laundry	1 42	
Canadian Cleaning Co., cleaning windows	35 00	
Superintendent's Dept., labour	837 46	
Repairs and renewals ($1,453.27):		
Card & McConnell, exterminating rats	10 00	
City Treasurer, elevator license	5 00	
Johnson Temperature Regulating Co., overhauling system	42 65	
A. Matthews, repairs to roof	22 95	
Photography, Dept. of, plans	60	
Superintendent's Dept., labour, $906.73; material, $465.34	1,372 07	
	$2,696 26	
Less sundry credits: cleaning, $11.00; repairs, $3.81	14 81	
	$2,681 45	
Caretaker, J. Wicksey, 12 mos. to 30 June	950 00	
		$3,631 45
(*b*) Maintenance of Department:		
Laboratory and workshop supplies ($1,904.88):		
Aikenhead Hardware, hardware	$245 35	
Allen Mfg. Co., laundry	15 33	
Ansco Co., photographic supplies	6 08	
Baird & Tatlock (London) thermometers and glassware	145 08	
Bausch & Lomb Optical Co., lenses	23 68	
British American Oil Co., oil	2 15	
The Bursar, postage supplied	10 00	
Prof. E. F. Burton, disbursements: Hardware and sundries, $19.88; cable, telegram and telephone messages, $15.91; car fare, $3.40; express and cartage, $2.85	42 04	
Canada Metal Co., solder	7 53	
Canadian Carbonate Co., gas	6 75	
Canadian H. W. Johns-Manville Co., tubing	2 75	
Canadian Kodak Co., plates	16 88	
Central Electric Supply Co., electrical supplies	123 67	
Copp, Clark Co., stationery and supplies	23 97	
Cornell Co-operative Society, paper	7 96	
Corning Glass Works, tubing	22 29	
Dean Bros., castings	12 01	
T. Eaton Co., towelling and supplies	43 78	
Eimer & Amend, rubber	3 27	
A. Gallenkamp & Co., glassware and supplies	306 78	
W. & L. E. Gurley, burettes	2 89	
Geo. M. Hendry Co., supplies	156 45	
Adam Hilger, plates	59 57	
Imperial Glass Works, glass	3 20	
Ingram & Bell, bottles	3 09	
Wm. Jessop & Sons, steel	14 16	
Lake Simcoe Ice Supply Co., ice	31 10	
Lyman Bros. & Co., chemicals	69 00	
Geo. A. Matthews, repairs	38 35	
Prof. J. C. McLennan, disbursements for purchases abroad: Ammeters, $41.54; lantern slides, $24.09; compasses, $15.77; thermometers, $14.03; cablegram, $4.57	100 00	
Ontario Rubber Co., tubing	3 04	
Charles Potter, lenses	3 00	
W. G. Pye & Co., supplies	84 00	
Queen City Glass Co., silvering flasks	6 50	
Ryrie Bros., repairs	5 00	
Robert Simpson Co., tubes	7 20	
Toronto Salt Works, salt	7 40	
Toronto Stamp & Stencil Works, engraving	4 60	
United Typewriter Co., ink	2 65	

32. *Physics Building and Department.*—Continued.

White & Thomas, trays	6 00	
R. S. Williams & Sons Co., tuning forks, etc.	8 40	
C. Wilson & Son, weights	2 40	
University Press, stationery and supplies	97 70	
Petty items (7)	10 87	
Freight charges	24 79	
Superintendent's Dept., labour, $20.52; material, $65.65	86 17	
Apparatus ($730.28):		
American Meter Co., meter	67 46	
Art Metropole, protractors	4 90	
Booth-Coulter Copper & Brass Co., vessel	6 16	
British Oxygen Co., cup fibres	16 40	
Canada Metal Co., castings	31 69	
Central Electric Supply Co., ammeters	18 15	
Dental Supply Co., micrometers	17 10	
Dept. of Commerce, Washington, lamps	7 07	
Geo. M. Hendry Co., balance	3 53	
Ingram & Bell, apparatus	230 95	
Keuffel & Esser, slide rules	48 50	
John Millen & Sons, reflectors	6 22	
Ryrie Bros., watches	22 50	
Standard Foundry Co., castings	26 10	
Western Electrical Instrument Co., meters	177 19	
A. R. Williams Machinery Co., apparatus	19 66	
Freight charges	4 01	
Superintendent's Dept., labour, $19.91; material, $2.78	22 69	
Experimental tables, cases, books, charts, etc. ($464.05):		
T. Eaton Co., shades and rug	32 00	
Macmillan & Co., subscription	7 51	
McGraw-Hill Book Co., chart	3 45	
L. Rawlinson, upholstering	3 50	
Royal Society of Arts, reprints	1 53	
Robert Simpson Co., chairs, cushions and rug	37 95	
Students' Book Dept., books	2 25	
Taylor & Francis, reprints	22 71	
Superintendent's Dept., labour, $180.19; material, $172.96	353 15	
Workshop assistance ($229.83):		
Chas. Marriott, 32 weeks, 5 days at $7.00 per week..	229 83	
	$3,329 04	
Less charts supplied to Applied Chemistry Dept. ...	9 00	
		$3,320 04
		$6,951 49

33. *Sub-Department of Astro-Physics.*

Maintenance ($270.65):	
H. Bakewell, engraving	$2 40
Canadian Carbon Co., batteries	7 93
Prof. C. A. Chaut, disbursements:	
Laboratory and photographic supplies, $3.37; postage, $1.22; polishing wheels, $1.10; sundries, $4.90	10 59
Dean Bros., castings	30 50
J. P. Henderson, audion	5 50
Geo. M. Hendry Co., rheostat and cells	6 47
H. Jewell, slides	7 50
Photography, Dept. of, slides	10 60
T. S. Plaskett, repairs	11 70
J. G. Ramsey & Co., photographic supplies	9 28
Royal Astronomical Society, copies	20 00
W. R. Sachs, ball bearings	21 84
W. K. Simpson, mounting prisms and castings	31 60
Students' Book Dept., books	35 70
University of Chicago Press, slides	12 56
University Press, binding and stationery	17 85
Superintendent's Dept., labour, $25.90; material, $2.73....	28 63

33. *Sub-Department of Astro-Physics.*—Continued.

Apparatus ($539.21):		
Bausch & Lomb Optical Co., objective	3 78	
C. L. Berger & Sons, planimeter	107 65	
C. F. Cole Co., planimeter	41 58	
Goldsmiths' Stock Co. of Canada, apparatus	150 00	
F. W. Merchant, coil	50 00	
W. K. Simpson, gyroscope	52 50	
Topley Co., microscope and lamp house	83 00	
S. White, clock cases, etc.	49 50	
Freight charges	1 20	
Expenses *re* observation of eclipse ($100.00):		
Prof. C. A. Chant, disbursements:		
Express, $82.63; cartage, etc., $13.85; hardware and lumber, $9.40; telegrams and consular certificate, $5.34; oilcloth, $5.00; photographic plates, $3.20, $119.42; less paid by Astronomical Society, $19.42	100 00	
		$909 86

34. *Geological Department.*

Maintenance ($383.59):		
Wm. Bartlett & Son, lantern screen	$16 34	
Grand & Toy, pencil sharpener	2 00	
John Hillock & Co., trays	32 50	
Office Specialty Mfg. Co., card sections	13 25	
Prof. W. A. Parks, petty disbursements	1 88	
Photography, Dept. of, slides and prints	60 05	
G. E. Stechert & Co., books	24 43	
Students' Book Dept., paper	6 25	
Superintendent of Documents, Washington, reprints	1 72	
A. T. Thompson & Co., carbons	11 62	
Toronto Book Co., book	5 00	
University of California Press, books	19 50	
Wards' Natural Science Establishment, specimens	79 34	
University Press, binding and stationery supplies	120 40	
Freight charges	1 20	
Superintendent's Dept., labour, $2.94; material, $4.77	7 71	
	$403 19	
Less received from students for breakages	19 60	
		$383 59

35. *Mineralogical Department.*

Maintenance ($498.02):		
Bausch & Lomb Optical Co., balances	$51 27	
T. Eaton Co., soap, etc.	3 16	
Eimer & Amend, chemicals and supplies	40 15	
J. S. Giles, alcohol	17 50	
Grand & Toy, stationery	7 95	
Geo. M. Hendry Co., blackboard	4 50	
Lyman Bros. & Co., chemicals	45 85	
Lymans Ltd., Montreal, screens	10 45	
L. Peterson & Co., cabinet	30 53	
Photography, Dept. of, slides	14 55	
Charles Potter, oxygen	7 50	
J. G. Ramsey & Co., photographic supplies	4 95	
Sauveur & Boylston, polishing machine	59 98	
J. Swift & Son, instruments	45 05	
Students' Book Dept., pencils	2 00	
Prof. T. L. Walker, petty disbursements	2 95	
Wards' Natural Science Establishment, specimens	37 33	
University Press, stationery and supplies	47 75	
Freight charges	9 86	
Superintendent's Dept., labour, $29.76; material, $24.98	54 74	
	$498 02	
Less received from students for breakages	26 16	
		$471 86

36. *Psychological Department.*

Maintenance ($399.88):		
J. G. Biddle, rheostat	$9 08	
Will Frost, pictures and designs	50 00	
Grand & Toy, fyles	26 40	
J. F. Hartz Co., microtome and oven	80 40	
J. Leballister, services as cleaner during the term	40 00	
Manhattan Electrical Supply Co., receivers	24 54	
Prof. W. G. Smith, disbursements:		
Chemicals and laboratory supplies, $21.14; hardware, oils, etc., $13.00; typewriter supplies, $7.02; stationery, etc., $6.78; electric heater, $5.50; violin bow, $4.00; cleaning, $1.00	58 44	
Students' Book Dept., note-books	55 20	
University Press, printing and stationery	98 75	
Superintendent's Dept., labour, $49.79; material, $20.47	70 26	
	$513 07	
Less sundry credits (Re-education)	113 19	
		$399 88

37. *Mathematical Department.*

Class room supplies ($3.45):		
University Press, stationery	$3 45	
		$3 45

38. *Sub-Department of Mechanics.*

Maintenance ($10.99):		
Anatomical Dept., methylated spirits	$0 25	
Applied Chemistry, Dept. of, alcohol	1 50	
R. Tanner, apparatus	10 00	
Topley Co., apparatus	14 40	
University Press, twine	12	
Superintendent's Dept., material	3 72	
	$29 99	
Less received from sale of pamphlets	19 00	
		$10 99

39. *Political Science.*

Class room supplies ($19.52):		
University Press, stationery and supplies	$9 97	
Freight charges	4 55	
Superintendent's Dept., labour, $1.53; material, $3.47	5 00	
		$19 52

40. *History.*

Class room supplies ($20.20):		
University Press, printing, stationery and supplies	$20 20	
		$20 20

41. *Italian and Spanish.*

Class room supplies ($17.45):		
Office Specialty Mfg. Co., card cabinet	$5 50	
Photography, Dept. of, slides	50	
Students' Book Dept., books	4 95	
University Press, stationery	6 50	
		$17 45

42. *University College Departments.*

Greek ($25.00):		
Mrs. Mary Johnston, books, $50.00 (collection of the late Prof. G. W. Johnston) less charged to Latin Dept., $25.00	$25 00	
Latin ($25.00):		
Mrs. Mary Johnston, books	25 00	

42. *University College Departments.*—Continued.

Ancient History ($17.50):		
Geo. M. Hendry Co., maps	17 50	
English ($12.00):		
Photography, Dept. of, slides	12 00	
French ($54.05):		
T. Eaton Co., lantern screen	12 15	
Prof. A. Ledoux, facsimiles of war posters	18 00	
Photography, Dept. of, slides	7 75	
Students' Book Dept., books and stationery	14 45	
University Press, stationery	70	
Superintendent's Dept., material	1 00	
German: (nothing spent).		
Orientals ($62.45):		
Geo. M. Hendry Co., maps	$17 50	
Students' Book Dept., books	24 95	
Yale University, tablets	20 00	
Ethics ($21.75):		
T. Eaton Co., bookcase	19 00	
Miss C. Tocque, typewriting	2 75	
		$217 75

43. *University College General Expenses.*

Stationery and printing ($70.86):		
The Bursar, postage supplied	$20 00	
National Typewriter Co., ribbon	1 00	
United Typewriter Co., ribbon and repairs	2 00	
University Press, stationery and supplies	47 86	
Advertising ($6.88):		
Evening Telegram	3 00	
News Publishing Co.	2 10	
Toronto Daily Star	1 78	
Incidentals ($90.08):		
Toronto Weekly Railway and Steamboat Guide Co., subscription to "Guide"	5 60	
R. M. Williams, illuminating resolutions	12 00	
Superintendent's Dept., labour, $43.49; material, $28.99	72 48	
		$167 82

44. *Trinity College Service.*

The Bursar, Trinity College, students' car fares for transportation to University lectures	$451 24	
		$451 24
		$277,313 41

III. Faculty of Medicine.

45. *Salaries.*

Anatomy:	
J. P. McMurrich, Professor, 12 mos. to 30 June	$4,000 00
J. C. Watt, Lecturer (Sessional), $2,000; additional course in Topographical Anatomy, $200	2,200 00
T. A. Robinson, Acting Demonstrator in charge of Dental Anatomy (Sessional), $200; Demonstrator for Dental students (Easter Term), $500	700 00
Assistants (Sessional):	
C. J. Copp	150 00
N. D. Frawley (paid also in Gynaecology)	150 00
E. R. Hooper	150 00
Wallace A. Scott (paid also in Surgery—war service)	150 00
G. E. Wilson (paid also in Surgery—war service)	150 00
G. R. Philp (war service)	100 00
R. E. Gaby (paid also in Surgery—war service)	50 00
T. R. Hanley, at $50 (Michaelmas Term—paid also in Therapeutics)	20 00

45. *Salaries.*—Continued.

H. D. Harrison, at $50 (Easter Term)	30 00	
J. E. L. Keyes, at $50 (Michaelmas Term)	20 00	
J. H. McPhedran, (paid also in Medicine—war service)	50 00	
C. B. Parker (paid also in Surgery)	50 00	
W. F. Plewes	50 00	
J. Richards, at $50 (Easter Term)	30 00	
J. X. Robert	50 00	
H. L. Rowntree, at $50 (from February)	20 00	
F. R. Scott, at $50 (resigned 2 February)	30 00	
F. W. Weston	50 00	
Miss G. Dowsley, Technical Assistant, 12 mos. to 30 June, at $436 per annum, less July and Aug. on leave of absence without salary	363 34	
G. Lynne, Caretaker and Laboratory Assistant, 12 mos. to 30 June	850 00	
H. McCormick, Laboratory Attendant, 12 mos. to 30 June, at $720 of which $400 charged as cleaner, Biological Building	320 00	
		$9,733 34
Pathology and Bacteriology:		
J. J. Mackenzie, Professor, 12 mos. to 30 June	$3,800 00	
Lecturers (Sessional):		
D. Graham, at $2,000 (war service, half pay)	1,000 00	
H. K. Detweiler, substitute (paid also from Medical Research Fund)	1,000 00	
Assistants (Sessional):		
J. A. Oille (paid also in Medicine)	150 00	
O. R. Mabee (paid also in Surgery)	100 00	
H. W. Baker (paid also in Surgery)	50 00	
R. R. Graham, at $50 (Michaelmas Term—paid also in Surgery—war service from January)	25 00	
Fletcher McPhedran (paid also in Medicine)	50 00	
R. W. Naylor	50 00	
W. L. Robinson	50 00	
D. H. Boddington, Assistant in Clinical Laboratory (Sessional—paid also in Chemical Pathology—war service)	125 00	
Laboratory Assistants, each 12 mos. to 30 June:		
A. Wilson, at $800 (of which $400 charged as Caretaker of Pathological Building)	400 00	
F. Thibault	700 00	
Laboratory Attendants for preparing media:		
Miss R. Price, 1 July to 30 Sept. at $40 per mo., $120; June, at $60	180 00	
Miss L. McLatchie, 1 Oct. to 31 May, at 40 per mo...	320 00	
A. E. Myers, 22 Aug. to 30 June, at $6 per week	299 00	
Miss I. E. Ruttan, Stenographer, 12 mos. to 30 June	750 00	
		$9,049 00
Chemical Pathology:		
Andrew Hunter, Professor, 12 mos. to 30 June	$3,800 00	
C. G. Imrie, Lecturer (Sessional), at $1,800, (war service, half pay	900 00	
W. R. Campbell, Demonstrator, substitute (Sessional)..	1,000 00	
F. W. Rolph, Demonstrator and Assistant in Clinical Laboratory (Sessional)	750 00	
D. H. Boddington, Assistant in Clinical Laboratory (Sessional—paid also in Chemical Pathology—war service)	250 00	
Laboratory Assistant:		
A. Husband, at $650, war service, balance after payment of substitute	100 00	
T. Richardson, substitute, 12 mos. to 30 June	550 00	
Mrs. Margaret Davis, Laboratory Attendant, 12 mos. to 30 June	300 00	
		$7,650 00
Pharmacy and Pharmacology:		
V. E. Henderson, Associate Professor, at $3,000 (war service, half pay)	$1,500 00	
A. Brodey, Lecturer (Sessional), substitute	1,000 00	

45. *Salaries.*—Continued.

J. A. Macdonald, Assistant (Sessional)	250 00	
Class Assistants (Sessional):		
F. C. Harrison	75 00	
C. Sheard, Jr. (also in Medicine, without salary)	75 00	
W. P. J. Alexander	50 00	
T. James, Laboratory Assistant, 12 mos. to 30 June	800 00	
		$3,750 00
Clinical Departments:		
Medicine and Clinical Medicine ($6,650):		
Associates, each 12 mos. to 30 June:		
W. J. McCollum	$300 00	
J. H. Elliott	300 00	
H. C. Parsons (Clinical Medicine only—war service)	300 00	
D. McGillivray (war service)	300 00	
G. W. Howland	300 00	
H. S. Hutchison	300 00	
Demonstrators (Sessional):		
E. C. Burson	250 00	
F. A. Clarkson	250 00	
J. S. Graham (also Pediatrics)	250 00	
R. W. Mann	250 00	
A. J. Mackenzie (war service)	250 00	
J. H. McPhedran (paid also in Anatomy—war service)	250 00	
C. S. McVicar (war service)	250 00	
Brefney O'Reilly	250 00	
G. W. Ross (paid also in Therapeutics)	250 00	
D. King Smith (war service)	250 00	
G. S. Strathy (war service)	250 00	
C. J. Wagner	250 00	
G. S. Young	250 00	
Alan Brown	200 00	
A. W. Canfield (Clinical Assistant in Pediatrics)	200 00	
Fletcher McPhedran (paid also in Pathology)	200 00	
Assistants (Sessional):		
G. F. Boyer (war service)	150 00	
J. D. Loudon	150 00	
J. A. Oille (paid also in Pathology)	150 00	
M. B. Whyte	150 00	
G. Bates	50 00	
B. Hannah	50 00	
F. S. Minns	50 00	
T. J. Page	50 00	
F. S. Park (war service)	50 00	
G. E. Smith (Pediatrics)	50 00	
E. J. Trow	50 00	
R. G. Armour (war service—without salary)	.....	
T. J. Glover (without salary)	.....	
C. Sheard, Jr. (without salary—paid in Pharmacy)	.....	
C. D. Parfitt, Lecturer in Tuberculosis Clinic (Sessional)	50 00	
Surgery and Clinical Surgery ($5,310):		
Associates, each 12 mos. to 30 June:		
C. B. Shuttleworth	300 00	
J. F. Uren	300 00	
T. B. Richardson (war service)	300 00	
G. Silverthorn	300 00	
E. S. Ryerson (paid also as Assistant Secretary to Faculty—war service)	300 00	
W. J. O. Malloch (war service)	300 00	
Wallace A. Scott (paid also in Anatomy—war service)	300 00	
W. W. Jones	300 00	
Demonstrators (Sessional):		
M. H. V. Cameron	250 00	

45. *Salaries.*—Continued.

R. E. Gaby (paid also in Anatomy—war service)	250 00
W. E. Gallie (war service)	250 00
J. A. Roberts (war service)	250 00
N. S. Shenstone (war service)	250 00
G. E. Wilson (paid also in Anatomy—war service)	250 00
A. B. Wright	250 00
Assistants (Sessional):	
A. S. Moorhead (war service)	150 00
D. E. Robertson (war service)	100 00
H. W. Baker (paid also in Pathology)	50 00
F. A. Cleland	50 00
J. H. Cotton	50 00
T. A. J. Duff	50 00
R. R. Graham (paid also in Pathology—war service from January)	50 00
C. H. Hair	50 00
J. W. Hayes	50 00
O. R. Mabee (paid also in Pathology)	50 00
J. A. McCollum (war service)	50 00
P. K. Menzies (war service)	50 00
B. Z. Milner	50 00
C. B. Parker (paid also in Anatomy)	50 00
Robin Pearse (war service)	50 00
A. H. Perfect	50 00
L. B. Robertson (war service—without salary)	.....
Laboratory Attendant, at $35 per mo., half time, balance in Obstetrics and Gynaecology:	
Mrs. A. Lewis, 9 mos. from 1 July	157 50
Miss Muriel Bonham, 3 mos. from 1 April	52 50
Obstetrics and Gynaecology ($2,810):	
Associates, each 12 mos. to 30 June:	
W. B. Hendry, Gynaecology (war service)	300 00
J. A. Kinnear, Obstetrics	300 00
Demonstrators (Sessional):	
A. C. Hendrick, Gynaecology	250 00
M. M. Crawford, Obstetrics (war service)	250 00
W. J. Mabee, Obstetrics	250 00
S. J. N. Magwood, Obstetrics (war service)	200 00
Assistants (Sessional):	
J. G. Gallie, Obstetrics (war service)	100 00
William A. Scott, (war service, Easter Term)	50 00
N. D. Frawley, Gynaecology (paid also in Anatomy)	50 00
R. W. Wesley, Gynaecology	50 00
H. E. Clutterbuck, Gynaecology (war service, without salary)	.....
A. Johnston, Laboratory Assistant, 12 mos. to 30 June	800 00
Laboratory Attendant, at $35 per mo., half time, balance in Surgery:	
Mrs. A. Lewis, 9 mos. from 1 July	157 50
Miss Muriel Bonham, 3 mos. from 1 April	52 50
Ophthalmology ($450):	
Assistants (Sessional):	
C. A. Campbell	150 00
D. N. Maclennan	150 00
S. M. Lyon	50 00
W. W. Wright (war service)	50 00
A. F. Aylesworth	50 00
Oto-Laryngology ($600):	
Demonstrators (Sessional):	
P. Goldsmith (war service)	200 00
G. Royce (war service)	200 00
Assistants (Sessional):	
G. Biggs	50 00
Edmund Boyd	50 00
A. D. McKelvey	50 00
Jane P. Sproule	50 00

45. *Salaries.*—Continued.

Therapeutics ($1,000):		
C. E. C. Cole, Demonstrator (Sessional—war service)	200 00	
Assistants (Sessional):		
G. W. Ross, $150; as Acting Head of Department in absence of Dr. Rudolf, $150, (paid also in Medicine)	300 00	
S. R. D. Hewitt (war service)	50 00	
H. M. Tovell	50 00	
W. V. Watson	50 00	
S. Johnston, Demonstrator, Anaesthesia (Sessional)	250 00	
Assistants, Anaesthesia (Sessional):		
T. R. Hanley (paid also in Anatomy)	50 00	
M. D. McKichan (paid also in Biology)	50 00	
Hygiene ($200):		
R. D. Defries, Demonstrator (Sessional—paid also in Antitoxin Laboratory)	200 00	
Psychiatry ($125):		
J. M. Forster, Associate, 12 mos. to 30 June	50 00	
Harvey Clare, Demonstrator (Sessional)	25 00	
C. M. Hincks, Special Lecturer (Sessional—paid also in Psychology)	50 00	
Dental Surgery ($50):		
A. D. A. Mason, Demonstrator (Sessional)	50 00	
		$17,195 00
Associate Professors, each 12 mos. to 30 June:		
H. B. Anderson, Clinical Medicine, etc., (without salary)	.....	
A. M. Baines, Clinical Medicine and Pediatrics	700 00	
G. A. Bingham, Clinical Surgery and Clinical Anatomy	700 00	
H. A. Bruce, Clinical Surgery (war service)	700 00	
J. T. Fotheringham, Medicine and Clinical Medicine (war service)	700 00	
A. Primrose, Clinical Surgery (paid also as Secretary to Faculty—war service)	700 00	
F. N. G. Starr, Clinical Surgery	700 00	
W. B. Thistle, Clinical Medicine	600 00	
G. Chambers, Clinical Medicine (war service)	450 00	
R. J. Dwyer, Clinical Medicine	450 00	
H. T. Machell, Obstetrics and Pediatrics	450 00	
W. McKeown, Clinical Surgery (war service)	450 00	
C. L. Starr, Clinical Surgery (Orthopedics—war service)	450 00	
K. C. McIlwraith, Obstetrics	450 00	
J. G. Fitzgerald, Hygiene (paid also as Director of Antitoxin Laboratory—war service from March, 1918)	450 00	
W. Goldie, Clinical Medicine (war service from March, 1918)	350 00	
F. W. Marlow, Gynaecology	350 00	
G. Boyd, Oto-Laryngology	350 00	
J. Ferguson, Clinical Medicine	350 00	
S. M. Hay, Clinical Surgery	350 00	
A. A. Macdonald, Obstetrics and Gynaecology	350 00	
		$10,050 00
Professors, each 12 mos. to 30 June:		
1. H. Cameron, Surgery and Clinical Surgery (war service)	1,050 00	
A. McPhedran, Medicine and Clinical Medicine	1,050 00	
J. A. Amyot, Hygiene (war service)	2,000 00	
R. D. Rudolf, Therapeutics (war service)	1,000 00	
B. P. Watson, Obstetrics and Gynaecology	1,000 00	
N. A. Powell, Medical Jurisprudence, etc.	700 00	
D. J. G. Wishart, Oto-Laryngology	700 00	
J. M. MacCallum, Ophthalmology	700 00	
G. S. Ryerson, Ophthalmology and Otology (resigned)	450 00	
G. H. Burnham, Ophthalmology and Otology	450 00	
C. K. Clarke, Psychiatry (also Dean of the Faculty)	450 00	
N. H. Beemer, Mental Diseases (extra-mural, without salary)	.....	
		$9,550 00

45. *Salaries.*—Continued.

Secretary's Office.

A. Primrose, Secretary to Faculty (paid also as Associate Professor—war service)	$500 00	
E. S. Ryerson, Assistant Secretary (paid also in Surgery—war service)	500 00	
Miss E. A. Jamieson, Assistant, 12 mos. to 30 June	1,200 00	
Stenographers:		
Miss O. Russell, 12 mos. to 30 June	700 00	
Miss D. E. Wade, 9 mos. from 1 July at $600 per annum (resigned)	450 00	
Miss A. P. Perry, 3 mos. from 1 April at $600 per annum	150 00	
		$3,500 00
		$70,477 34

46. *Retiring Allowances.*

(Nothing spent.)

47. *Anatomical Department.*

Anatomical Material ($1,380.15):		
W. E. Baycroft	$16 00	
J. M. Crawford	16 00	
F. W. Matthews	459 50	
G. W. Morse	80 00	
H. R. Ranks	480 00	
J. Rogers	14 00	
Wm. Speers	208 00	
J. K. Shinn	16 00	
J. S. Torrance	16 00	
Superintendent's Dept., (boxes) labour, $30.69; material, $43.96	74 65	
Material for preservation, chemicals, etc. ($457.85):		
W. R. Brock Co., cloth	13 48	
Ingram & Bell, chemicals	312 56	
Inland Revenue Dept., methylated spirits	114 25	
Sanderson Pearcy & Co., oils	9 80	
Freight charges	1 80	
Superintendent's Dept., material	5 96	
Incidentals ($251.60):		
Allen Mfg. Co., laundry	10 27	
The Bursar, postage supplied	2 00	
T. Eaton Co., chair, mirror, etc.	16 00	
H. S. Eckets & Co., supplies	1 90	
Geo. M. Hendry Co., chart	9 80	
Hudson-Parker Ltd., coats	30 00	
James Robertson Co., sink	27 93	
Miss J. Satkowski, models	61 52	
Robert Simpson Co., towelling	11 40	
United Typewriter Co., inspection	5 25	
Wistar Institute of Anatomy and Biology, books	6 10	
University Press, cards and supplies	39 48	
Freight charges	1 87	
Superintendent's Dept., labour, $19.07; material, $9.01	28 08	
	$2,089 60	
Less received for barrels returned $14 52		
Methylated spirits supplied to departments 2 25	16 77	
		$2,072 83

48. *Pathology and Bacteriology.*

Chemicals and supplies ($1,210.54):		
John Allan, meat	$8 25	
Allen Mfg. Co., laundry	8 95	
Baird & Tatlock (London), glassware and supplies	240 27	

48. *Pathology and Bacteriology.*—Continued.

The Bursar, postage supplied	12 00	
Canadian Carbonate Co., gas	30 75	
T. Eaton Co., towels	4 80	
Eimer & Amend, tags	15 15	
Grand & Toy, envelopes	2 00	
J. F. Hartz Co., syringes, cotton, etc.	87 75	
Geo. M. Hendry Co., chart	6 37	
Ingram & Bell, chemicals and supplies	293 73	
Inland Revenue Dept., methylated spirits	94 57	
International Equipment Co., tubes	4 13	
Prof. J. J. Mackenzie, disbursements:		
Food for animals, $16.77; postage and carfare, $1.90; animals, $1.50; sundries, $9.83	30 00	
John McGillian, carrots	89 10	
Standard Chemical, Iron & Lumber Co., acetone	18 40	
Wm. Staughton, fodder	84 37	
Stuart & Foster, ammonia	5 93	
Toronto Produce Co., fodder	8 79	
United Typewriter Co., holder and inspection	9 25	
University Press, stationery and supplies	80 36	
Freight charges	10 73	
Superintendent's Dept., labour, $18.84; material, $46.05	64 89	
Apparatus ($359.13):		
Baird & Tatlock (London), dishes	218 95	
Ingram & Bell, pipettes	27 75	
Richards Bros., repairs, racks, etc.	95 75	
Scientific Materials Co., apparatus	12 38	
Freight charges	4 30	
Care of refrigerating plant ($225.01):		
Superintendent's Dept., labour, $178.74; material, $46.27	225 01	
	$1,794 68	
Less received for barrels returned $18 31		
Royal Ontario Museum of Geology, methylated spirits supplied 5 00	23 31	
		$1,771 37

49. *Chemical Pathology.*

Allen Mfg. Co., laundry	$5 84	
Prof. A. Hunter, disbursements:		
Stationery, etc., $8.55; typewriting, $5.00; rubber tubing, etc., $4.22; repairing instrument, $2.50; postage, $2.00	22 27	
Ingram & Bell, chemicals, glassware and supplies	272 85	
International Equipment Co., glassware	48 95	
Lyman Bros. & Co., chemicals	6 75	
Nichols Chemical Co., chemicals	3 20	
Stuart & Foster, ammonia	5 92	
Arthur H. Thomas Co., chemicals	174 49	
W. Lloyd Wood, outfit	12 02	
University Press, stationery and supplies	17 85	
Freight charges	2 93	
Superintendent's Dept., material	22 11	
Apparatus ($753.01):		
Andrew H. Baird, apparatus	79 80	
Geo. M. Hendry Co., funnels	6 37	
Ingram & Bell, apparatus	336 59	
Palo Co., crucible	43 64	
Scientific Materials Co., flasks	18 92	
Arthur H. Thomas Co., apparatus	247 76	
Freight charges	19 93	
Alterations and repairs ($108.35):		
Canadian Ice Machine Co., repairs	66 35	
Geo. A. Matthews, repairs	6 85	
Superintendent's Dept., labour, $4.57; material, $30.58	35 15	
		$1,456 54

50. *Pharmacy and Pharmacology.*

Supplies and apparatus ($430.09):		
Aikenhead Hardware, hardware	$17 95	
Bausch & Lomb Optical Co., glassware	28 67	
Dr. A. Brodey, disbursements:		
Hardware, oils, etc., $13.62; animals, $5.00; laundry, $3.00; oilcloth, $2.25; postage and carfare, $1.65; sundries, $9.94	35 46	
Carnahan's Drug Store, chemicals	10 92	
Dental Co. of Canada, gas	11 65	
T. Eaton Co., towelling, trimmer, etc.	7 24	
J. A. Fontaine, frogs	25 00	
Harvard Apparatus Co., apparatus	30 42	
F. Hickey, apparatus	60 00	
Ingram & Bell, glassware and supplies	59 55	
G. E. Leworthy, glass-blowing	9 85	
National Drug & Chemical Co., chemicals	14 87	
Ontario Rubber Co., tubing	11 98	
Wm. Staughton, fodder	13 20	
Synthetic Drug Co., meters	5 00	
Toronto Dog and Cat Hospital, rabbits	14 50	
University Press, fyles and paper	6 00	
Freight charges	2 43	
Superintendent's Dept., labour, $23.57; material, $41.83	65 40	
		$430 09

51. *Medicine.*

Charts, apparatus, microscopes, etc., ($142.00):		
Ingram & Bell, apparatus	$15 00	
Macey Sign Co., X-ray apparatus	62 00	
Toronto General Hospital, X-ray apparatus	65 00	
		$142 00

52. *Surgery.*

Supplies and laboratory expenses ($9.75):		
University Press, books	$9 75	
Apparatus, etc. ($88.75):		
Ingram & Bell, microscope and cabinet	88 75	
		$98 50

53. *Obstetrics and Gynaecology.*

Supplies and apparatus ($127.57):		
Ingram & Bell, apparatus and supplies	$51 97	
F. R. Lockhart, balopticon	42 00	
J. McCausland & Son, cover glasses	5 17	
J. G. Ramsey & Co., photographic supplies	8 91	
Dr. B. P. Watson, petty disbursements	7 57	
University Press, note-books and labels	11 95	
		$127 57

54. *Ophthalmology.*

(Nothing spent.)

55. *Oto-Laryngology.*

(Nothing spent.)

56. *Therapeutics.*

(Nothing spent.)

57. *Hygiene.*

Supplies, apparatus and alterations ($756.40):		
T. Eaton Co., table	$3 25	
Mrs. M. Gratton, cleaning, 3 days	4 50	
Model Incubator Co., incubator	45 00	
New Jersey Entomological Co., collection	5 05	
Superintendent's Dept., labour, $377.05; material, $321.55..	698 60	
Occasional assistance ($200.00):		
Wm. Knowles	150 00	
Miss H. Finegan	50 00	
		$956 40

58. *Medical Jurisprudence.*

(Nothing spent.)

59. *Medical Building.*

Heat and light (supplied from Central Power Plant):		
Gas, city current and occasional fuel ($424.27):		
Consumers' Gas Co.	$424 27	
Water ($362.22):		
City Treasurer	362 22	
Caretaker's supplies ($119.37):		
Superintendent's Dept., labour, 88c.; material, $118.49....	119 37	
Cleaning ($1,013.56):		
Allen Mfg. Co., laundry	3 23	
Canadian Cleaning Co., cleaning windows	45 00	
Superintendent's Dept., labour	965 33	
Repairs and renewals ($1,418.90):		
Card & McConnell, exterminating rats	10 00	
City Treasurer, elevator license	5 00	
A. Matthews, repairs	374 76	
Photography, Dept. of, plans	3 60	
Routery Bros., plastering	2 00	
Superintendent's Dept., labour, $624.65; material, $398.89	1,023 54	
Sundries: Seating lecture rooms ($376.55):		
McKay School Equipment, desks, etc.	371 33	
Freight charges	5 22	
	$3,714 87	
Less sundry credits: repairs, $7.40; cleaning, $3.00	10 40	
	$3,704 47	
Caretaker, Thos. Motton, 12 mos. to 30 June	850 00	
		$4,554 47

60. *Pathological Building.*

Heat and light supplied by Toronto General Hospital:			
Toronto General Hospital, in full of account for heat and light for the six years ending 1 July, 1917 ($17,400.00, less charged in previous years, $15,750.00)	$1,650 00		
Do. on account for year 1917-18	2,900 00		
Held in suspense account pending adjustment	3,500 00		
		$8,050 00	
Gas and city current ($479.43):			
Consumers' Gas Co.		479 43	
Water ($338.20):			
City Treasurer		338 20	
Caretaker's supplies ($119.96):			
Superintendent's Dept., labour, $2.10; material, $117.86...		119 96	
Cleaning ($821.52):			
Allen Mfg. Co., laundry		2 46	
Canadian Cleaning Co., cleaning windows		27 00	
Superintendent's Dept., labour		792 06	

60. *Pathological Building.*—Continued.

Repairs and renewals ($450.42):		
City Treasurer, elevator licenses	10 00	
A. Matthews, repairs to roof	72 04	
Photography, Dept. of, plans	5 40	
R. Robertson & Sons, masonry	48 87	
Superintendent's Dept., labour, $234.52; material, $79.59..	314 11	
	$10,259 53	
Less sundry credits: repairs	25	
	$10,259 28	
Caretaker, Alex. Wilson, 12 mos. to 30 June, $800.00 (of which $400.00 charged as laboratory attendant)	400 00	
		$10,659 28

61. *General Expenses.*

Stationery, printing, postage and office supplies ($1,272.23):		
The Bursar, postage supplied	$201 80	
Will Frost, drawings	12 00	
Miss E. A. Jamieson, petty disbursements	10 00	
Lowe-Martin Co., cards, folders and stationery	155 04	
McAinsh & Co., fountain pen	2 50	
Might Directories, city directory	10 00	
Office Specialty Mfg. Co., desk	46 50	
United Typewriter, inspection, key tops, etc.	24 50	
University Press, calendar, printing and stationery	803 65	
Superintendent's Dept., labour, $6.02; material, 22c.	6 24	
Appropriations for Dean's office ($375.64):		
Dr. C. K. Clarke, for disbursements by him	334 39	
Dr. N. A. Powell, travelling expenses	41 25	
Summer Session in Medicine ($600.00):		
Remuneration to Instructors:		
A. S. Moorhead	100 00	
O. R. Mabee	100 00	
R. R. Graham	100 00	
G. S. Young	100 00	
J. D. Loudon	100 00	
A. G. McPhedran	100 00	
		$2,247 87
		$94,994 26

IV. Faculty of Applied Science.

62. *Salaries.*

Professor W. H. Ellis, Dean of the Faculty, 12 mos. to 30 June	$4,000 00	$4,000 00

Electrical Engineering.

T. R. Rosebrugh, Professor, 12 mos. to 30 June	$3,800 00	
H. W. Price, Associate Professor, 12 mos. to 30 June	2,800 00	
Lecturers (Sessional):		
W. S. Guest	1,700 00	
A. R. Zimmer	1,600 00	
Electricians, each 12 mos. to 30 June:		
W. R. McKee	800 00	
A. Cunningham, Assistant	575 00	
		$11,275 00

Mechanical Engineering.

R. W. Angus, Professor, 12 mos. to 30 June	$3,400 00	
L. M. Arkley, Assistant Professor, 12 mos. to 30 June	2,200 00	

62. *Salaries.*—Continued.

Lecturers (Sessional):		
J. J. Tralll, Hydraulics	2,000 00	
J. H. Billings, Machine Design	1,600 00	
J. H. Parkin, Thermodynamics, at $1,500 (war service, half pay)	750 00	
F. Hickey, Machinist, 10 mos. salary	1,000 00	
R. Fullerton, Engineer of Experimental Plant, 12 mos. to 30 June (resigned), $850; paid to 15 Sept., $177.08	1,027 08	
Laboratory Firemen, at $60 per month:		
Walter Odd, 26 Sept. to 27 Oct., 16 Dec. to 20 April	318 25	
A. J. Jordan, 29 Oct. to 15 Dec.	96 90	
G. S. Laing, Laboratory Assistant, 12 mos. to 30 June	875 00	
		$13,267 23

Applied Mechanics.

J. McGowan, Professor, 12 mos. to 30 June	$3,300 00	
P. Gillespie, Associate Professor, 12 mos. to 30 June	2,800 00	
Assistant Professors, each 12 mos. to 30 June:		
C. R. Young, at $2,500 (war service, half pay)	1,250 00	
A. T. Laing, (part time—paid also as Secretary to Faculty)	800 00	
W. K. Simpson, Mechanician, 12 mos. to 30 June	1,300 00	
F. Baker, Laboratory Attendant, 38 weeks at $2.40	91 20	
		$9,541 20

Mining Engineering.

H. E. T. Haultain, Professor, 12 mos. to 30 June	$3,800 00	
Lecturers (Sessional):		
F. C. Dyer	1,600 00	
J. T. King	1,500 00	
E. Tozer, Laboratory Assistant, 12 mos. to 30 June	800 00	
M. O'Bryan, Laboratory Attendant, 9 mos. salary	400 00	
		$8,100 00

Metallurgical Engineering.

G. A. Guess, Professor, 12 mos. to 30 June	$3,800 00	
J. Rachwal, Laboratory Attendant, 4 mos. from 1 Oct. (half time)	143 75	
		$3,943 75

Ferro-Metallurgy.

T. R. Loudon, Assistant Professor, at $2,400 (war service, salary voluntarily given up)	.....	.....

Surveying.

L. B. Stewart, Professor, 12 mos. to 30 June	$3,800 00	
W. M. Treadgold, Assistant Professor, at $2,500, (war service, part pay)	1,100 00	
Lecturers (Sessional):		
S. R. Crerar	2,000 00	
E. W. Banting	1,700 00	
		$8,600 00

Applied Chemistry.

J. Watson Bain, Professor of Chemical Engineering, 1 July to 28 Feb., at $3,300; with Can. War Mission to U. S. from 1 March, without salary	$2,200 00	
M. C. Boswell, Associate Professor of Organic Chemistry, 12 mos. to 30 June	2,500 00	
E. G. R. Ardagh, Assistant Professor of Analytical Chemistry, 12 mos. to 30 June	2,500 00	

62. *Salaries.*—Continued.

L. J. Rogers, Lecturer, Analytical Chemistry, (Sessional)....	1,200 00	
G. E. Leworthy, Lecture Assistant and Glass-blower, (Sessional)	750 00	
D. Sinclair, Laboratory Assistant, 12 mos. to 30 June	1,000 00	
Miss F. McMechan, Temporary Instructor, Chemical Engineering (Sessional—paid also as Assistant to Secretary)	50 00	
		$10,200 00

Electro-Chemistry.

J. T. Burt-Gerrans, Lecturer (Sessional)	$1,900 00	
W. G. Birrell, Demonstrator (Sessional)	800 00	
E. A. Bishop, Lecture Assistant (Michaelmas Term—paid also as caretaker, Chem. and Mining Bldg.)	50 00	
J. Benson, Laboratory Attendant, 8 mos. salary	200 00	
		$2,950 00

Architecture.

C. H. C. Wright, Professor, 12 mos. to 30 June	$3,800 00	
A. W. McConnell, Assistant Professor, at $2,400 (war service, half pay)	1,200 00	
J. M. Lyle, Substitute Instructor, Architectural Design (Sessional)	500 00	
H. H. Madill, Lecturer (Sessional), at $1,400 (war service, half pay)	700 00	
Instructors (Sessional):		
A. S. Mathers, substitute	500 00	
C. W. Jefferys, Freehand Drawing	700 00	
J. L. Banks, Modelling	700 00	
Miss J. C. Laing, Instructor, etc., 12 mos. to 30 June	900 00	
		$9,000 00

Drawing.

C. H. C. Wright, Professor (paid as Prof. of Architecture)..	.....	
J. R. Cockburn, Assistant Professor, Descriptive Geometry, at $2,500 (war service—half pay)	$1,250 00	
W. J. Smither, Lecturer (Sessional), also substituting	1,600 00	
Demonstrators (Sessional):		
F. E. Watson	1,100 00	
O. Margison	900 00	
R. W. Harris, Assistant Instructor, 1 mo.	100 00	
George Brown, Attendant in Drafting Rooms, 9 mos. salary..	550 00	
		$5,500 00

Engineering Physics and Photography.

G. R. Anderson, Associate Professor, 12 mos. to 30 June	$2,800 00	
G. L. Wallace, Demonstrator (Sessional)	1,100 00	
A. J. Burge, Photographer, 9 mos. salary	600 00	
		$4,500 00

Special Lectures.

W. S. Ferguson, Lecture in Accountancy (Sessional)	$600 00	
A. R. Clute, Lectures in Company Law (Sessional)	200 00	
		$800 00

Secretary's Office.

A. T. Laing, Secretary to Faculty and Librarian, 12 mos. to 30 June (paid also in Applied Mechanics)	$2,000 00	
Miss F. McMechan, Assistant to Secretary, 12 mos. to 30 June (paid also in Applied Chem.)	900 00	
Miss R. Cave, Stenographer, 12 mos. to 30 June	750 00	
		$3,650 00
		$95,327 18

63. *Chemistry and Mining Building.*

Heat and light (supplied from Central Power Plant):		
Gas, city current and occasional fuel ($463.56):		
Consumers' Gas Co.	$463 56	
Water ($109.41):		
City Treasurer	109 41	
Caretaker's supplies ($196.55):		
Superintendent's Dept., labour, $1.16; material, $195.39	196 55	
Cleaning ($1,693.36):		
Allen Mfg. Co., laundry	16 95	
Canadian Cleaning Co., cleaning windows	40 00	
Superintendent's Dept., labour	1,636 41	
Repairs and renewals ($1,549.72):		
Wm. Bartlett & Sons, shades	54 55	
Card & McConnell, exterminating rats	10 00	
City Storage Co., cartage	1 25	
City Treasurer, elevator license	10 00	
Johnson Temperature Regulating Co., overhauling system	77 46	
A. Matthews, repairs to roof	30 77	
R. Robertson & Sons, masonry	12 59	
Ryrie Bros., repairs to clock	3 50	
University Press, name plate	10	
Superintendent's Dept., labour, $785.92; material, $563.58	1,349 50	
	$4,012 60	
Less sundry credits: repairs, $52.74; cleaning, $9.00	61 74	
	$3,950 86	
Caretaker, E. Bishop, 12 mos. to 30 June	1,000 00	
Messengers at $5.00 per week ($257.14):		
Alice Wilson, 41 weeks, 4 days	208 57	
L. Hunter, 9 weeks, 5 days	48 57	
		$5,208 00

64. *Engineering Building.*

Heat and light (supplied from Central Power Plant):		
Gas, city current and occasional fuel ($89.03):		
Consumers' Gas Co.	$89 03	
Water ($83.02):		
City Treasurer	83 02	
Caretaker's supplies ($89.50):		
Superintendent's Dept., labour, 50c.; material, $89.00	89 50	
Cleaning ($1,243.72):		
Allen Mfg. Co., laundry	2 48	
Canadian Cleaning Co., cleaning windows	40 00	
Superintendent's Dept., labour	1,201 24	
Repairs and renewals ($1,200.91):		
Card & McConnell, exterminating rats	10 00	
A. Matthews, repairs to roof	93 20	
R. Robertson & Sons, masonry	16 26	
Routery Bros., plastering	14 50	
F. E. Watson, plans	15 00	
Superintendent's Dept., labour, $633.63; material, $418.32	1,051 95	
	$2,706 18	
Less sundry credits: repairs, $1.80; cleaning, $2.00	3 80	
	$2,702 38	
Caretakers ($700.00):		
W. J. Graham, 12 mos. to 30 June (reduced service)	500 00	
S. J. Apted (supervision)	200 00	
		$3,402 38

65. *Thermodynamics Building.*

Heat and light (supplied from Central Power Plant):		
Fuel for Experimental Plant ($858.58):		
Connell Anthracite Mining Co.	$858 58	

65. *Thermodynamics Building.*—Continued.

Gas and city current ($7.49):		
Consumers' Gas Co.	7 49	
Water ($48.54):		
City Treasurer	48 54	
Caretaker's supplies ($77.20):		
Superintendent's Dept., labour, $1.16; material, $76.04	77 20	
Cleaning ($227.99):		
Allen Mfg. Co., laundry	6 15	
Canadian Cleaning Co., cleaning windows	20 00	
Superintendent's Dept., labour	201 84	
Repairs and renewals ($571.28):		
A. Matthews, repairs to roof	18 87	
Photography, Dept. of, plans	40	
Superintendent's Dept., labour, $224.13; material, $327.88	552 01	
		$1,791 08

66. *Geodetic Observatory Building.*

Heat and light (supplied from Central Power Plant):		
Water ($10.00):		
City Treasurer	$10 00	
Caretaker's supplies ($9.73):		
Superintendent's Dept., material	9 73	
Cleaning ($115.75):		
Superintendent's Dept., labour	115 75	
Repairs and renewals ($175.35):		
Elliott & Brown, moving stone for clock	40 00	
Photography, Dept. of, plans	10	
Routery Bros., plastering	17 60	
Superintendent's Dept., labour, $96.20; material, $21.45	117 65	
		$310 83

67. *Electrical Engineering.*

Supplies ($1,393.92):	
Aikenhead Hardware, hardware	$218 38
T. Atkinson, casting	2 50
Baines & Peckover, steel	55 37
Belden Mfg. Co., wire	33 29
Canadian General Electric Co., electrical supplies	61 27
Canadian H. W. Johns-Manville Co., asbestos	66 68
Canadian National Carbon Co., carbons	37 52
Cosmos Chemical Co., lacquer	14 20
Crucible Steel Co., steel	46 43
Diehl Mfg. Co., commutators	8 23
Dodge Mfg. Co., patterns and castings	52 83
T. Eaton Co., supplies	18 34
Electrical Controller & Mfg. Co., coil	5 84
Factory Products Co., electrical supplies	24 13
Gordon, Mackay & Co., cloth	9 60
Hardware Co. of Toronto, hardware	56 65
L. E. Knott Apparatus Co., coils	6 14
Rice Lewis & Son, hardware	11 20
Lyman Bros. & Co., chemicals	12 59
Macdonald Mfg. Co., tins	2 54
McClary Mfg. Co., containers	11 57
James Morrison Brass Mfg. Co., brass rod	108 71
Northern Electric Co., jacks, etc.	6 00
Ontario Rubber Co., tubing	10 29
Photography, Dept. of, prints	2 90
Plastics Ltd., bakelite board	42 00
Rogers Electric Co., switches	3 78
Prof. T. R. Rosebrugh: audions purchased, $38.20; office supplies and sundries, $22.71; hardware, oils, etc., $12.39; car fare, $7.00; electrical supplies, $4.28	84 58
Sanderson Pearcy & Co., oils	6 57
Trumbull Electric Mfg. Co., electrical supplies	149 94
Weston Electrical Instrument Co., repairs	6 13

67. *Electrical Engineering.*—Continued.

Wilkinson & Kompass, steel	11 80	
University Press, pencil sharpener	1 00	
Petty items (3)	5 11	
Freight charges	10 35	
Superintendent's Dept., labour, $93.89; material, $95.57..	189 46	
Apparatus ($1,473.60):		
Aikenhead Hardware, drill	82 81	
Canadian Fairbanks-Morse Co., scale	36 75	
Canadian Westinghouse Co., regulator, etc.	355 00	
Dalton Mfg. Corporation, lathe	281 67	
T. Eaton Co., thermometer	10 00	
Edison Storage Battery Co., batteries	103 42	
Gregory Electric Co., motors	403 35	
Pyrolectric Instrument Co., galvanometer	141 03	
Rogers Electric Co., batteries	15 30	
Freight charges	44 27	
Furniture, printing and incidentals ($114.71):		
Office Specialty Mfg. Co., cabinets and guides	71 41	
University Press, printing and stationery	43 30	
	$2,982 23	
Less received from Willis-Faber Co., for damage to instruments in transit	87 30	
		$2,894 93

68. *Mechanical Engineering.*

Supplies ($527.00):		
Prof. R. W. Angus, disbursements:		
Hardware, oils, etc., $9.17; slides and blue prints, $3.05; pamphlets, etc., $2.05; rubber tubing, $1.40; sundries, $6.69	$22 36	
Aikenhead Hardware, hardware	183 69	
Wm. Bartlett & Son, curtain	19 40	
Beardmore Belting Co., belting	9 70	
T. Eaton Co., bookcase	20 00	
Garlock Packing Co., pipe covering	38 78	
Geo. M. Hendry Co., meter sticks	2 36	
G. E. Leworthy, glass-blowing	4 00	
Photography, Dept. of, slides and prints	5 45	
Precision Instrument Co., capillaries	19 50	
R. Robertson & Sons, repairs	30 82	
E. R. Watts & Son, tracing linen	22 40	
University Press, stationery and supplies	6 70	
Petty items (2)	3 92	
Freight charges	3 40	
Superintendent's Dept., labour, $25.69; material, $103.83..	129 52	
Apparatus ($568.37):		
Bristol Co., gauges	58 25	
C. F. Cole Co., slide rule	17 87	
J. L. C. Nornabell, camera	63 95	
Precision Instrument Co., kit	61 39	
Republic Flow Meters Co., meter	109 87	
Sheldons Ltd., motor parts	48 00	
Toronto Hydro-Electric System, stove	6 50	
Veeder Mfg. Co., counters	16 42	
Weston Electric Instrument Co., transformers, etc.	100 18	
Yale & Towne Mfg. Co., block and chain	60 72	
Freight charges	7 43	
Superintendent's Dept., labour, $9.39; material, $8.40	17 79	
Proportion of Fuel for Experimental Plant ($650.00):		
Connell Anthracite Mining Co.	650 00	
		$1,745 37

69. *Applied Mechanics.*

Supplies ($146.47):		
Allen Mfg. Co., laundry	$ 45	
Baines & Peckover, steel	19 93	
Britnell & Co., cement	3 75	

69. *Applied Mechanics.*—Continued.

Hardware Co. of Toronto, hardware and belting	38 85	
Photography, Dept. of, slides	75	
Superintendent's Dept., labour, $50.95; material, $31.79	82 74	
Apparatus ($15.50):		
National Electric Heating Co., heater	7 00	
Toronto Hydro-Electric System, heater	8 50	
		$161 97

70. *Mining Engineering.*

Supplies ($525.93):		
Aikenhead Hardware, hardware	$50 72	
Denver Fire Clay Co., weights and supplies	51 22	
Doan & Charles, fuel	20 21	
F. C. Dyer, disbursements:		
Supplies, $5.24; express, $4.00; glass tubing, etc., $2.50	11 74	
T. Eaton Co., supplies	51 40	
Eimer & Amend, chemicals and glassware	44 72	
H. C. Fry Glass Co., beakers	3 53	
Gowans, Kent & Co., jars	8 63	
Geo. M. Hendry Co., tubing	4 25	
Kilgour Bros., bags	18 20	
J. T. King, petty disbursements	4 80	
Lyman Bros., & Co., chemicals and tubing	33 30	
Lymans Ltd., Montreal, filter paper and chemicals	26 95	
Ontario Rubber Co., tubing	3 54	
Palo Co., beakers	7 28	
Photography, Dept. of, slides	4 75	
S. M. Robertson, dies	13 50	
Rogers Supply Co., fire clay	2 50	
T. S. Simms & Co., brushes	5 02	
University Press, stationery and supplies	27 88	
Petty items (3)	3 75	
Freight charges	13 76	
Superintendent's Dept., labour, $50.46; material, $63.82	114 28	
Apparatus ($342.33):		
Boston Gear Works, ball bearings	6 81	
Dodge Mfg. Co., pulleys	7 85	
F. Hickey, base	9 40	
A. Matthews, apparatus parts	36 49	
McGregor & McIntyre, steel plates	7 36	
S. M. Robertson, apparatus parts	35 00	
A. H. Winter-Joyner, meters	12 77	
Superintendent's Dept., labour, $123.03; material, $103.62	226 65	
	$868 26	
Less received from Military Hospitals' Commission for construction of ore bins	44 45	
		$823 81

71. *Metallurgical Engineering.*

Supplies ($248.20):		
Canadian Hoskins, Ltd., plates	$ 80	
Eimer & Amend, chemicals and glassware	205 33	
General Filtration Co., plates	3 65	
National Electric Heating Co., heating element	2 25	
Washington Mills Emery Mfg. Co., emery	8 83	
A. J. Weeks, tanks	11 12	
Freight charges	11 99	
Superintendent's Dept., labour, $1.66; material, $2.57	4 23	
Apparatus ($107.23):		
Bausch & Lomb Optical Co., microscope parts	30 37	
Geo. A. Matthews, commutator and repairs	22 80	
National Electric Heating Co., repairs	2 25	
Freight charges	26 62	
Superintendent's Dept., labour, $11.83; material, $13.31	25 14	
	$355 43	
Less tube supplied to Special Research	4 50	
		$350 93

72. *Ferro-Metallurgy.*

Supplies ($1.50):		
Photography, Dept. of, slides	$1 50	
		$1 50

73. *Surveying.*

Supplies ($192.63):		
Art Metropole, paper	$17 74	
McGraw-Hill Book Co., books	6 46	
McKay School Equipment, lamps and paper	13 23	
R. Robertson & Sons, trimming stone work	26 91	
Prof. L. B. Stewart, petty disbursements	7 87	
University of Toronto Engineering Society, supplies	3 05	
University Press, paper	5 00	
Petty items (3)	3 87	
Superintendent's Dept., labour, $31.34; material, $77.16	108 50	
Preliminary expenses *re* Site of Summer Camp ($192.91):		
Travelling expenses:		
E. W. Banting	38 75	
S. R. Crerar	21 45	
Prof. L. B. Stewart	70 21	
James Dickson, surveying site	62 50	
		$385 54

74. *Applied Chemistry.*

Supplies ($852.83):		
Prof. J. W. Bain, petty disbursements	$5 04	
Bario Metal Corporation, crucible	2 45	
Blaisdell Paper Pencil Co., pencils	13 62	
Bureau of Standards, Washington, standards	7 37	
Chemical Products of Canada, chemicals	6 25	
Driver-Harris Co., wire	29 37	
International Glass Co., tubing	14 52	
L'Air Liquide Society, gas	6 00	
Leeds & Northrup Co., lamps	2 45	
Lyman Bros. & Co., chemicals	20 24	
Lymans Ltd., Montreal, chemicals and glassware	64 66	
McKay School Equipment, tubing	2 00	
Nichols Chemical Co., chemicals	169 15	
Ontario Rubber Co., tubing	5 56	
Palo Co., burner	3 41	
Photography, Dept. of, slides	8 05	
Physics, Dept. of, charts	9 00	
T. S. Plaskett, liquid air	3 00	
Randall-Faichney Co., thermometers	35 62	
Richards Glass Co., tubing	5 50	
Arthur H. Thomas Co., chemicals and glassware	209 95	
Toronto Plate Glass Importing Co., glass	5 00	
United Typewriter Co., repairs	13 00	
Miss I. Wallace, chemicals and supplies	55 57	
University Press, stationery and binding	25 95	
Freight charges	13 79	
Superintendent's Dept., labour, $65.19; material, $51.12	116 31	
Apparatus ($341.18):		
Alliance Beverage Co., safe, $70.00; boiler, $20.00	90 00	
J. G. Biddle, rheostat	14 52	
Leeds & Northrup Co., galvanometer, etc.	72 80	
J. & J. Taylor, cartage of safe	4 20	
Taylor Instrument Co.'s, indicator and repairs	110 03	
Freight charges	1 28	
Superintendent's Dept., labour, $34.35; material, $14.00	48 35	
	$1,194 01	
Less alcohol supplied to Mechanics Dept.	1 50	
		$1,192 51

75. *Electro-Chemistry.*

Supplies ($518.61):		
J. T. Baker Chemical Co., chemicals	$249 12	
Bausch & Lomb Optical Co., glassware	126 02	

75. *Electro-Chemistry.*—Continued.

Booth-Coulter Copper & Brass Co., brass rod	9 19	
Canadian Kodak Co., paper	1 95	
Central Electric Supply Co., cord	14 00	
H. B. Latimer, chemicals	20 00	
Lyman Bros. & Co., chemicals	17 83	
Prof. W. Lash Miller, disbursements:		
Laboratory and office supplies, $21.15; hardware, oils, etc., $16.35; car fares, $1.00; sundries, $10.04	48 54	
Toronto Plate Glass Importing Co., glass	5 00	
Freight charges	11 95	
Superintendent's Dept., material	15 01	
Apparatus ($831.14):	410 69	
Bausch & Lomb Optical Co., apparatus	11 00	
Beaver Flint Glass Co., rectifier	48 00	
Canadian Westinghouse Co., motors	17 80	
G. E. Leworthy, repairs	11 95	
Robert Simpson Co., motor	33 40	
Vokes Hardware Co., tools	11 97	
Ward-Leonard Electric Co., bases	205 64	
Weston Electrical Instrument Co., meters	8 24	
Freight charges	72 45	
Superintendent's Dept., labour, $56.35; material, $16.10		$1,349 75

76. *Architecture and Drawing.*

Architecture:		
Supplies ($148.83):	$1 08	
Allen Mfg. Co., laundry	2 00	
Anatomy, Dept. of, methylated spirits	10 00	
Canadian Bag Co., scrim	10 34	
T. Eaton Co., towels and frame	7 11	
Hardware Co. of Toronto, hardware	7 50	
Ontario Lime Co., plaster paris	8 70	
Photography, Dept. of, slides and prints	41 57	
Students' Book Dept., books and stationery	15 94	
University Press, paper and stationery		
Sundry subscriptions:	12 12	
American Architect	5 58	
Architectural Forum	6 08	
Architectural Review	5 68	
International Studio	6 08	
Chas. Scribner's Sons	9 05	
Superintendent's Dept., material		
Assistance and models for life classes ($100.00):	100 00	
F. E. Simpson, assistance	$248 83	
Drawing:		
Supplies ($84.51):	15 64	
Art Metropole, paper cutter and supplies	30	
Photography, Dept. of, prints	10 27	
Students' Book Dept., fountain pens and note-books	5 00	
United Typewriter Co., inspection and paper	12 50	
University Press, pencils and carbon paper	40 80	
Superintendent's Dept., labour, $2.10; material, $38.70		
Printing instruction sheets ($26.65):	26 65	
University Press		$359 99

77. *Engineering Physics and Photography.*

Engineering Physics:		
Supplies ($212.65):	$82 60	
Canadian Fairbanks-Morse Co., batteries, lenses, etc.	18 64	
Canadian General Electric Co., lamps	10 02	
Eimer & Amend, chemicals	6 50	
Grand & Toy, fyles		

77. *Engineering Physics and Photography.*—Continued.

Hardware Co. of Toronto, hardware	14 84	
Geo. M. Hendry Co., supplies	37 92	
Lake Simcoe Ice Supply Co., ice	3 04	
McGraw Hill Book Co., books	8 58	
University Press, stationery	11 50	
Petty items (3)	4 01	
Superintendent's Dept., material	15 00	
Apparatus ($248.47):		
G. J. Beattie, photometer	110 00	
Canadian General Electric Co., ammeter	55 25	
C. F. Cole Co., planimeter, etc.	38 70	
Consolidated Optical Co., telescope	14 63	
Geo. M. Hendry Co., apparatus	29 89	
	$461 12	
Photography:		
Supplies ($682.75):		
Ansco Co., supplies	$129 11	
Art Metropole, globes	2 94	
Canadian Kodak Co., films, plates and supplies	241 61	
C. F. Cole Co., paper, etc.	46 60	
T. Eaton Co., supplies	50 93	
Lyman Bros. & Co., chemicals	42 79	
W. J. Moore, repairs	5 00	
J. G. Ramsey & Co., supplies	24 21	
P. L. Tait, repairs	23 90	
Topley Co., mirrors	36 00	
University Press, printing and supplies	8 53	
Petty items (5)	7 45	
Superintendent's Dept., labour, $40.86; material, $22.82	63 68	
Apparatus ($262.21):		
Ansco Co., printer	16 67	
Canadian Fairbanks-Morse Co., scale and generator	26 30	
Cooper-Hewitt Electric Co., apparatus	67 92	
T. Eaton Co., trimmer	16 90	
F. R. Lockhart, camera	20 00	
Ramsey & Taylor, camera and lens	73 49	
Topley Co., apparatus	35 05	
Freight charges	5 88	
Messenger service ($119.00):		
Miss N. Coope, 22 weeks at $5.00 to $6.00 per week	119 00	
	$1,525 08	
Less received for work done for various departments (including accounts receivable, $32.35)	387 95	
		$1,137 13

78. *General Expenses.*

Stationery, printing and office supplies ($801.71):		
The Bursar, postage supplied	$140 00	
Grand & Toy, cabinet	10 75	
R. L. Hyland, almanac	1 50	
Mackenzie & Co., mounting and framing	3 50	
Miss L. E. Mason, clerical assistance, 2 weeks at $7.50 per week	15 00	
Might Directories, city directory	10 00	
Office Specialty Mfg. Co., tables, cabinet and stationery	103 55	
Remington Typewriter Co., inspection and repairs	13 25	
Stromberg-Carlson Telephone Mfg. Co., desk telephones	25 78	
United Typewriter Co., inspection	3 00	
University Press, calendar, printing and stationery	471 23	
Freight charges	2 90	
Superintendent's Dept., material	1 25	
		$801 71
		$117,244 61

V. Faculty of Household Science.

79. *Salaries.*

Household Science Department ($7,800):		
Miss A. L. Laird, Associate Professor, 12 mos. to 30 June	$2,500 00	
Lecturers (Sessional):		
Miss L. L. Ockley (Special course—paid also in Education)	1,500 00	
Miss Z. A. Herrick	1,200 00	
Instructors (Sessional):		
Miss Helen Scott (half time to special course)	1,000 00	
Mrs. M. V. M. Scott (half time to special course)	1,000 00	
Miss M. C. McDonald, Laboratory Assistant (Sessional)	600 00	
Food Chemistry Department ($3,100):		
Dr. C. C. Benson, Associate Professor of Physiological Chemistry (also Secretary to the Faculty), 12 mos. to 30 June	2,500 00	
Miss Ruth Neff, Instructor in Physiological Chemistry (Sessional)	600 00	
		$10,900 00

80. *Household Science Building and Department.*

(*a*) Maintenance of Building:		
Heat and light (supplied from Central Power Plant):		
Gas, city current and occasional fuel ($185.60):		
Consumers' Gas Co.	$185 60	
Water ($74.94):		
City Treasurer	74 94	
Caretaker's supplies ($147.41):		
Superintendent's Dept., labour, $2.88; material, $144.53	147 41	
Cleaning ($1,231.96):		
Canadian Cleaning Co., cleaning windows	30 00	
Superintendent's Dept., labour	1,201 96	
Repairs and renewals ($501.56):		
Card & McConnell, exterminating rats	10 00	
City Treasurer, elevator license	5 00	
Johnson Temperature Regulating Co., repairs	7 75	
F. E. Watson, plans	5 00	
J. M. Wighton, masonry	16 50	
Superintendent's Dept., labour, $338.51; material, $118.80	457 31	
	$2,141 47	
Less sundry credits: cleaning	16 00	
	$2,125 47	
Caretaker, F. Hanmer, 12 mos. to 30 June (with rooms, heat and light)	885 00	
		$3,010 47
(*b*) Maintenance of Departments:		
(1) Household Science:		
Laboratory supplies ($623.41):		
Wm. Davies Co., provisions	$43 85	
Farmers' Dairy Co., milk	23 12	
Harris Abattoir Co., meat and provisions	106 80	
Geo. M. Hendry Co., graduates	4 20	
R. Higgins & Son, groceries	107 02	
Lyman Bros. & Co., chemicals	12 35	
McKay School Equipment Co., supplies	135 90	
Medland Bros., klim	15 50	
Ontario Rubber Co., tubing	1 46	
A. Provan, groceries	202 08	
	$652 28	
Less received from students for breakages	28 87	
	$623 41	

80. *Household Science Building and Department.*—Continued.

Laboratory attendance ($704.00):		
Mrs. Apted, 17 days at $1.50 per day	25 50	
Mrs. Bowes, 6 months at $37.00, $222.00; 3½ months at $35.00, $122.50	344 50	
Mrs. Conacher, 6 months at $35.00, $210.00; 3½ months at $32.00, $112.00	322 00	
Mrs. Gough, 8 days at $1.50	12 00	
Equipment and incidentals ($256.59):		
McClary Mfg. Co., ovens	176 04	
Toronto Hydro-Electric System, oven	60 00	
United Typewriter Co., inspection	3 00	
Freight charges	1 45	
Superintendent's Dept., labour, $14.80; material, $1.30	16 10	
Use of city schools ($450.00):		
Board of Education, City of Toronto, 6 rooms at $150.00 a room (half session)	450 00	
Books ($50.00):		
Students' Book Dept.	50 00	
(2) Food Chemistry:		
Maintenance ($463.13):		
Bausch & Lomb Optical Co., micrometer	$3 43	
Dr. C. C. Benson, disbursements:		
Laboratory and office supplies, $16.07; food supplies, $11.95; cleaning material, etc., $6.10; rubber tubing, $5.85	39 97	
T. Eaton Co., towelling	7 92	
Eimer & Amend, chemicals, glassware and supplies	158 89	
General Chemical Co., chemicals	45 84	
Geo. M. Hendry Co., supplies	64 14	
Lyman Bros. & Co., chemicals	35 92	
McLary Mfg. Co., oven	14 67	
Students' Book Dept., books	10 35	
Arthur H. Thomas Co., balances, etc.	96 73	
Petty items (2)	2 55	
Freight charges	17 00	
Superintendent's Dept., labour, $20.19; material, $6.41	26 60	
	$524 01	
Less received from students for breakages..	60 88	
	$463 13	
Laboratory attendance ($166.21):		
At $4.50 per week:		
Mrs. E. Melvin	29 10	
Miss Baker	9 90	
At $1.50 and $1.75 per day:		
Mrs. Wright	54 14	
Miss F. Burton	49 07	
Mrs. L. Whitehouse	9 00	
Mrs. E. Swanton	7 50	
Mrs. R. Apted	6 00	
Mrs. L. Earrey	1 50	
(3) General Expenses:		
Stationery, printing, office supplies and incidentals ($81.00):		
The Bursar, postage supplied	27 00	
University Press, paper and stationery	54 00	
Clerical assistance ($265.00):		
At $10.00 per week:		
Miss L. Maclennan, 14 weeks	140 00	
Miss M. Cowan, 12½ weeks	125 00	
		$3,059 34
		$16,969 81

VI. Faculty of Education.

81. *Salaries.*

	Payment to Officer.	Superannuation reservations under 7 Geo. V. Cap. 58.
Professors, each 12 mos. to 30 June:		
W. Pakenham, History and Science of Education (also Dean of Faculty), at $4,000	$3,876 25	$123 75
H. J. Crawford, Methods in Classics, also Headmaster of Schools, at $3,400	3,294 38	105 62
P. Sandiford, Associate Professor, 12 mos. to 30 June, at $3,200	3,100 63	99 37
Assistant Professors in Methods, also Chief Instructors, Schools, each 12 mos. to 30 June:		
G. A. Cornish, Science, at $2,700	2,616 25	83 75
J. T. Crawford, Mathematics, at $2,700	2,616 25	83 75
Lecturers in Methods, also Chief Instructors, Schools, each 12 mos. to 30 June:		
G. M. Jones, English and History, at $2,700	2,616 25	83 75
W. C. Ferguson, French and German, at $2,600	2,519 38	80 62
F. E. Coombs, Elementary Subjects, at $2,600	2,519 38	80 62
S. W. Perry, Art and Commercial Work, at $2,400	2,325 63	74 37
Instructors in Faculty and Assistant Instructors, Schools, each 12 mos. to 30 June:		
A. N. Scarrow, Constructive Work and Manual Training, at $2,100	2,035 00	65 00
G. N. Bramfitt, Music, at $2,000 (war service, half pay)	969 06	30 94
Assistant Instructors, University Schools:		
T. M. Porter, 12 mos. to 30 June, at $2,400	2,325 63	74 37
H. A. Grainger, 12 mos. to 30 June, at $2,400	2,325 63	74 37
J. A. Irwin, 12 mos. to 30 June, at $2,300	2,228 75	71 25
J. O. Carlisle, 12 mos. to 30 June, at $2,200	2,131 88	68 12
J. G. Workman, 12 mos. to 30 June, at $2,200	2,131 88	68 12
W. J. Dunlop, 12 mos. to 30 June, at $2,100	2,035 00	65 00
H. G. Manning, at $2,000 (war service, half pay)	967 88	32 12
F. Halbus, substitute for Manning, salary for 10 teaching mos. at $160 per mo.	1,548 75	51 25
G. A. Cline, at $2,000 (war service, half pay)	967 88	32 12
Substitute for Cline:		
G. A. Ballantyne, 3 mos. to 30 Nov. at $170 per mo. (resigned)	497 25	12 75
F. Phillips, 10 days at $5 per day	50 00	.....
J. G. Adams, 6 mos. from 1 Jan. at $180 per mo.	1,053 00	27 00
W. L. C. Richardson, 12 mos. to 30 June at $2,000	1,938 13	61 87
H. B. Kilgour, substitute for Bramfitt, salary for 10 teaching mos. at $150 per mo.	1,462 50	37 50
N. L. Murch, 12 mos. salary (10 payments) at $1,900	1,839 00	61 00
D. E. Hamilton, 12 mos. to 30 June, at $1,800	1,744 38	55 62
E. L. Daniher, 12 mos. salary (10 payments), at $1,700	1,645 50	54 50
W. J. Lougheed, 12 mos. salary (10 payments), at $2,400	2,340 00	60 00
W. H. Williams, 12 mos. salary (10 payments), at $2,300	2,242 50	57 50
Special Instructor in Music (Sessional), A. T. Cringan, at $400	390 00	10 00
Special Instructors (Sessional):		
Miss L. L. Ockley, Household Science (paid also in Household Science)	100 00	
Miss I. Sutherland, Household Science	100 00	.....
Miss E. Robertson, Sewing	100 00	.....
Supervisors of Practice-teaching (Sessional):		
J. Jeffries, High Schools	100 00	.....
N. Macdonald, Public Schools	100 00	.....
Miss L. Swinarton, Stenographer in Dean's Office, 12 mos. to 30 June	800 00	.....
Miss G. Cotter, Assistant Clerk, 12 mos. to 30 June	650 00	.....
	$62,304 00	$1,886 00
		62,304 00
		$64,190 00

82. *Education Building and Department.*

(*a*) Maintenance of Building:		
Fuel ($2,395.02):		
Connell Anthracite Mining Co.	$52 03	
W. H. Cox Coal Co.	1,685 94	
Doan & Charles	398 39	
Britnell & Co., teaming, $225.61; unloading, $33.05	258 66	
Light ($619.29):		
Toronto Electric Light Co.	521 07	
Consumers' Gas Co.	98 22	
Water ($203.04):		
City Treasurer	203 04	
Caretaker's supplies ($360.50):		
Superintendent's Dept., labour, $3.72; material, $356.78	360 50	
Cleaning ($1,670.39):		
Canadian Cleaning Co., cleaning windows	$20 00	
Superintendent's Dept., labour	1,650 39	
Repairs and renewals ($1,127.91):		
Canadian Powers Regulator Co., repairs	4 00	
Elliott & Brown, plastering	25 00	
A. Matthews, repairs to roof	27 20	
Photography, Dept. of, plans	5 40	
John Rydall, rake	2 75	
Toronto Iron Works, flange	15 70	
J. M. Wighton, masonry	54 50	
Superintendent's Dept., labour, $589.33; material, $404.03	993 36	
	$6,376 15	
Less sundry credits: cleaning, $40.56; repairs, $55.91	96 47	
	$6,279 68	
Engineer and caretaker, S. Hunter, 12 mos. to 30 June	1,200 00	
Firemen at $65.00 per month:		
Chas. Fly, 4½ months	292 50	
G. Maitland, 2 months, 4 days	138 66	
S. Green, 1 month, 6½ days	76 91	
Messengers, at $4.00 to $6.00 per week (paid also under Department):		
N. Shiniman, 18 weeks, 3 days	85 71	
B. Tipping, 14 weeks, 2 days	67 36	
I. Hurd, 13 weeks, 1 day	52 57	
Advertisement for messenger	24	
		$8,193 63
(*b*) Maintenance of Department:		
Use of city schools ($3,600.00):		
Board of Education, City of Toronto, 24 rooms at $150.00 a room	$3,600 00	
Clerical assistance ($390.00):		
Miss C. Angier, 32½ weeks at $12.00 per week	390 00	
Laboratory assistance ($97.32):		
I. Hurd, 9 weeks at $2.00 per week, $18.00; 4 weeks at $1.50 per week, $6.00	24 00	
N. Shiniman, 13 weeks at $2.00 per week	26 00	
Mrs. McKerrigan, 108 hours at 21½c. per hour	23 23	
Mrs. Nelson, 112 hours at 21½c. per hour	24 09	
Office supplies, printing, postage and incidentals ($720.77):		
The Bursar, postage supplied	150 00	
T. Eaton Co., table and chair	24 00	
Field, Love & House, rent of typewriter	18 75	
Might Directories, city directory	10 00	
Office Specialty Mfg. Co., sections	15 68	
Prof. W. Pakenham, disbursements:		
Office supplies and sundries, $14.52; telegrams and long distance calls, $13.22; carfares, $10.75; keys, $2.90	41 39	
Royal Office Supply Co., desk	32 00	

82. *Education Building and Department.*—Continued.

United Typewriter Co., stationery supplies and inspection	71 70	
University Press, calendar, printing and stationery..	321 65	
Superintendent's Dept., labour, $24.72; material, $10.88	35 60	
General supplies and apparatus for class room use, including lockers and furniture ($1,995.18):		
Miss M. E. Bowers, illuminating honour roll	50 00	
Canadian Carbonate Co., gas	2 40	
Chicago Botanical Supply Co., slides, etc.	61 27	
C. F. Cole Co., drawing supplies	11 40	
Denoyer-Geppert Co., maps	41 80	
T. Eaton Co., shades, curtains and supplies	165 57	
A. P. Freund, material	14 75	
Gourlay, Winter & Leeming, piano hire	30 00	
Geo. M. Hendry Co., supplies	163 02	
R. Laidlaw & Co., lumber	53 25	
L'Air Liquide Society, gas	9 50	
Lyman Bros. & Co., chemicals	41 60	
Mackenzie & Co., framing pictures	53 50	
McKay School Equipment Ltd., desks, etc.	244 52	
Paul Monroe, slides	28 21	
Office Specialty Mfg. Co., cases	2 36	
Pathescope of Canada Ltd., film service, $37.50; lamps, $12.75	50 25	
J. G. Ramsey & Co., repairs	3 50	
C. H. Stoelting Co., tests	25 23	
Students' Book Dept., books and supplies	250 23	
Superintendent of Documents, Washington, maps ..	4 60	
Topley Co., lamp and reflector	36 80	
Wm. Tyrrell & Co., books	4 60	
Vokes Hardware Co., hardware	9 05	
R. M. Williams, engrossing diplomas	15 10	
University Press, printing, stationery and supplies..	150 32	
Sundry newspapers, advertising for teachers	10 36	
Petty items (3)	3 33	
Superintendent's Dept., labour, $245.05; material, $213.61	458 66	
Athletics ($617.36):		
Aura Lee Club, use of athletic grounds	200 00	
Ryrie Bros., medals and fobs	115 60	
A. G. Spalding & Bros., balls and bats	29 50	
University Press, programmes, etc.	45 75	
Superintendent's Dept., labour, $204.26; material, $22.25	226 51	
Lunch room equipment ($44.95):		
T. Eaton Co., utensils	23 45	
Superintendent's Dept., labour, $8.01; material, $13.49	21 50	
Pianist's services at physical culture classes ($90.00):		
Miss J. L. Goodman, 180 hours at 50c. per hour	90 00	
Use of swimming tank at Knox College ($25.00):		
Knox College	$25 00	
		$7,580 58
(c) Education Building Annex:		
Alterations ($6,698.63):		
Canadian H. W. Johns-Manville Co., pipe covering..	$92 29	
City Treasurer, installing water service	42 01	
Elliott & Brown, plastering and masonry	484 75	
A. Matthews, repairs to roof, $132.91; ventilation flues, $65.85	198 76	
J. M. Wighton, masonry	8 25	
Superintendent's Dept., labour, $2,779.12; material, $3,110.45	5,889 57	
	$6,715 63	
Less received from sale of fence	17 00	
	$6,698 63	

82. *Education Building and Department.*—Continued.

Furnishings and equipment ($1,775.91):		
Canada Furniture Manufacturers, furniture	191 14	
T. Eaton Co., divans and scrim	32 80	
Macey Office Equipment Co., chairs	223 00	
McKay School Equipment Ltd., desks	787 25	
G. H. Robinson, chairs	39 00	
Freight charges	7 20	
Superintendent's Dept., labour, $32.62; material, $462.90	495 52	
Maintenance:		
Fuel ($912.99):		
W. H. Cox Coal Co., fuel	801 49	
Britnell & Co., teaming	111 50	
Light ($34.11):		
Consumers' Gas Co.	14 33	
Toronto Electric Light Co.	19 78	
Water ($52.25):		
City Treasurer	52 25	
Caretaker's supplies ($76.64):		
Superintendent's Dept., labour, 66c.; material, $75.98	76 64	
Cleaning ($143.35):		
Canadian Cleaning Co., cleaning windows	3 10	
Superintendent's Dept., labour	140 25	
Sundries ($208.85):		
Crescent Concrete Paving Co., granolithic walks	79 50	
Superintendent's Dept., labour, $80.24; material, $49.11	129 35	
		$9,902 73
		$89,866 94

VII. Faculty of Forestry.

83. *Salaries.*

B. E. Fernow, Professor (also Dean of the Faculty), 12 mos. to 30 June	$4,000 00	
Assistant Professors, each 12 mos. to 30 June:		
W. N. Millar, 1 July to 31 Aug., at $2,300; (far service, half pay, from 1 Sept.)	1,341 66	
C. D. Howe, at $2,500, of which $1,250 charged to Botany	1,250 00	
J. H. White, on leave of absence, part time (also in Botany)	600 00	
Miss E. W. Mills, Stenographer in Dean's Office, 12 mos. to 30 June	700 00	
		$7,891 66

84. *Forestry Building and Department.*

(*a*) Maintenance of Building:		
Fuel ($700.90):		
Connell Anthracite Mining Co.	$700 90	
Light ($220.30):		
Toronto Electric Light Co.	130 37	
Consumers' Gas Co.	89 93	
Water ($40.27):		
City Treasurer	40 27	
Caretaker's supplies ($44.07):		
Superintendent's Dept., labour, $2.12; material, $41.95	44 07	
Cleaning ($292.14):		
Allen Mfg. Co., laundry	2 82	
Canadian Cleaning Co., cleaning windows	7 00	
Superintendent's Dept., labour	282 32	
Repairs and renewals ($336.10):		
Photography, Dept. of, plans	60	
Superintendent's Dept., labour, $169.26; material, $166.24	335 50	

84. *Forestry Building and Department.*—Continued.

Caretaker, Geo. Ward, 2 months at $650.00; 10 months at $700.00	691 66	
		$2,325 44
(*b*) Maintenance of Department:		
Laboratory supplies and apparatus ($29.99):		
Geo. M. Hendry Co., blackboard	$1 82	
Keuffel & Esser Co., level	22 27	
Photography, Dept. of, slides	2 90	
University Press, drawing books	3 00	
Office expenses, printing and postage ($111.12):		
The Bursar, postage supplied	40 00	
Prof. B. E. Fernow, petty disbursements	89	
United Typewriter Co., inspection	6 75	
University Press, Calendar and stationery	63 48	
Fittings and Contingencies ($12.79):		
Petty items (3)	2 78	
Superintendent's Dept., labour, $7.57; material, $2.44	10 01	
		$153 90
		$10,371 00

VIII. University Extension and Social Service.

85. *University Extension.*

(*a*) Summer Session, 1917 ($1,000.00):	
Remuneration to Instructors:	
Arts:	
W. A. Clemens	$250 00
N. C. Hart	250 00
W. A. Kirkwood	250 00
W. P. M. Kennedy	250 00
(*b*) Correspondence Courses between Summer Sessions ($901.00):	
Remuneration to Instructors:	
Faculty Entrance, Normal Entrance and Commerce ($516.00):	
J. O. Carlisle	114 50
G. A. Cornish	98 50
J. T. Crawford	20 00
W. C. Ferguson	52 00
W. H. Fletcher	8 00
H. A. Grainger	125 00
D. E. Hamilton	39 00
G. M. Jones	25 00
Wm. Ward	4 00
J. G. Workman	30 00
Arts Course ($385.00):	
C. E. Auger	24 00
W. H. Clawson	104 00
W. A. Clemens	50 00
S. A. Cudmore	24 00
F. C. A. Jeanneret	50 00
D. A. Keys	50 00
W. A. Kirkwood	24 00
J. S. Will	50 00
G. M. Wrong	9 00
(*c*) Teachers' Courses ($300.00):	
Remuneration to Instructors:	
W. S. Funnell	200 00
G. M. Jones	100 00

85. *University Extension.*—Continued.

(*d*) Local Lectures ($210.00):

	Total Payment.	Paid by Fees.	Local Centres. Expenses.
W. J. Alexander	$13 00	$5 00	$3 00
W. E. Blatz	13 00	5 00	3 00
G. S. Brett	13 00	5 00	3 00
Miss L. W. Brooking	13 00	5 00	3 00
E. F. Burton	13 00	5 00	3 00
Miss S. L. Carson..	13 00	5 00	3 00
St. E. de Champ ..	52 05	15 00	17 05
C. A. Chant	13 00	5 00	3 00
C. K. Clarke	13 00	5 00	3 00
A. P. Coleman	12 00	5 00	2 00
J. A. Craig	15 45	5 00	5 45
S. A. Cudmore	13 00	5 00	3 00
N. W. DeWitt	5 00		
Sir Robert Falconer	8 00	5 00	3 00
Miss J. Grant	13 00	5 00	3 00
C. M. Hincks	13 00	5 00	3 00
L. E. Horning	57 75	20 00	17 75
M. Hutton	23 60	5 00	8 60
Franklin Johnson, Jr.	60 25	20 00	15 25
G. M. Jones	17 00	5 00	2 00
D. R. Keys	13 00	5 00	3 00
R. M. MacIver	25 00	10 00	5 00
J. F. McLaughlin ...	12 00	5 00	2 00
W. A. Parks	13 00	5 00	3 00
W. A. Riddell	13 00	5 00	3 00
P. Sandiford	43 70	15 00	13 70
C. B. Sissons	12 00	5 00	2 00
M. W. Wallace	13 00	5 00	3 00
	$538 80	$190 00	$188 80
Paid by Local Centres	328 80		
Paid by University			$210 00

(*e*) Office expenses ($2,701.96):

A. H. Abbott, allowance as Secretary, 12 mos. to 30 June (war service, half pay)	250 00	
Miss H. M. Latter, assistant secretary, 12 mos. to 30 June	900 00	
Clerical assistance ($641.67):		
Miss R. M. Grier, 10 mos. at $650.00 per annum.....	541 67	
Miss C. McCallum, 2 mos. at 50.00 per month	100 00	
Stationery, printing, office supplies and incidentals ($810.29):		
The Bursar, postage supplied	271 68	
H. Edwards & Son, copies	2 25	
Field, Love & House, repairs	2 25	
J. J. Gibbons, printing	126 00	
Office Specialty Mfg. Co., fyling cabinet, etc.	62 90	
Toronto Weekly Railway & Steamboat Guide, subscription to "Guide"	3 00	
United Typewriter Co., inspection and supplies	14 70	
G. A. Walton, addressing envelopes	15 00	
University Press, stationery, printing and supplies ..	304 85	
Petty items (2)	3 25	
Superintendent's Dept., labour, 50c.; material, $3.91..	4 41	
Advertising Correspondence Work and Summer Session. 1918 ($100.00):		
"The School"	100 00	
		$5,112 96

86. *Social Service Courses.*

(*a*) Maintenance of Building:		
Fuel ($324.49):		
Connell Anthracite Mining Co.	$324 49	
Light ($16.45):		
Consumers' Gas Co.	16 45	
Water ($15.36):		
City Treasurer	15 36	
Caretaker's supplies ($21.44):		
Superintendent's Dept., labour, $1.28; material, $20.16	21 44	
Cleaning ($527.70):		
Canadian Cleaning Co., cleaning windows	2 70	
Superintendent's Dept., labour	525 00	
Repairs and renewals ($309.91):		
Superintendent's Dept., labour, $183.98; material, $125.93	309 91	
		$1,215 35
(*b*) Maintenance of Department:		
Franklin Johnson, Jr., remuneration as Director, $3,000.00 (paid from special donation):		
Honoraria to lecturers ($925.00):		
Miss L. W. Brooking	$150 00	
A. H. Burnett	150 00	
Miss S. L. Carson	200 00	
Miss J. Grant	150 00	
C. M. Hincks	125 00	
W. A. Riddell	150 00	
Secretariat ($750.00):		
Miss A. C. McGregor, 12 mos. to 30 June	750 00	
Office supplies and general expenses ($214.70):		
A. J. Burge, operating lantern	6 00	
The Bursar, postage supplied	66 00	
Dr. Franklin Johnson, Jr., disbursements: Stationery and sundries, $4.99; subscription to pamphlets, etc., $3.91; postage and carfare, $3.41; express, $1.60	13 91	
Macey Office Equipment Co., sections and cards	46 09	
Northern Taxicab & Automobile Livery, taxi hire	2 00	
Miss I. Padbury, clerical assistance, 4½ days	9 00	
Remington Typewriter Co., inspection	6 00	
University Press, printing, stationery and supplies	65 70	
Books ($150.50):		
Students' Book Dept.	150 50	
		$2,040 20
		$8,368 51

IX. Residences and Dining Hall.

87. *Men's Residences.*

Heat and light (supplied from Central Power Plant):		
Gas, city current and occasional fuel ($70.27):		
Connell Anthracite Mining Co.	$70 27	
Water ($444.93):		
City Treasurer	444 93	
Caretaker's supplies ($7.18):		
Superintendent's Dept., material	7 18	
Cleaning ($80.40):		
Allen Mfg. Co., laundry	2 40	
Superintendent's Dept., labour	78 00	
Repairs and renewals ($1,151.11):		
Card & McConnell, exterminating rats	10 00	
A. Matthews, repairs to roof	16 13	
Petty items (2)	1 85	
Superintendent's Dept., labour, $450.74; material, $672.39	1,123 13	
	$1,753 89	
Less sundry credits: repairs	1 65	
		$1,752 24

88. *Women's Residences.*

(*a*) Maintenance of Building:	
Fuel ($3,051.97):	
Connell Anthracite Mining Co.	$2,926 27
Elias Rogers Co.	30 00
Britnell & Co., teaming	95 70
Light ($464.77):	
Consumers' Gas Co.	285 93
Toronto Electric Light Co.	178 84
Water ($231.08):	
City Treasurer	231 08
Repairs and renewals ($1,728.49):	
City Storage Co., cartage	9 25
A. Matthews, repairs to roof	27 93
Photography, Dept. of, plans	2 60
Routery Bros., plastering	53 65
J. M. Wighton, masonry	61 55
Superintendent's Dept., labour. $1,143.58; material, $429.93	1,573 51
	$5,476 31
Less sundry credits: repairs	20 73
	$5,455 58
Housekeeping Account:	
Provisions and housekeeping expenses (9,022.30):	
Antitoxin Laboratory, vegetables	$42 31
Armstrong & Paffard, groceries	1,194 16
Canada Bread Co., bread	766 34
Christie, Brown & Co., biscuits	6 54
City Dairy Co., ice cream	36 15
Geo. Coles, cake and pastry	157 80
Consumers' Gas Co., repairs	3 00
Wm. Dawson & Sons, subscriptions	7 67
W. S. Dunn & Co., apples	5 00
T. Eaton Co., supplies	127 69
Farmers' Dairy Co., milk	800 58
Globe Printing Co., subscriptions	8 00
Gourlay, Winter & Leeming, piano hire	126 25
E. Grainger & Co., flowers	2 00
Gurney Foundry Co., repairs	18 48
Gutta Percha & Rubber, Ltd., hose	6 15
Harris Abattoir Co., meat and provisions	3,000 81
H. J. Heinz Co., pickles	29 00
A. D. Heward, berries	16 20
J. J Higgins, ferns	10 50
Lake Simcoe Ice Supply Co., ice	110 90
Geo. Lister & Son, fruit and vegetables	825 51
Miss L. Livingstone, disbursements: Postage and carfares, $33.25; utensils, house furnishings, stationery, etc., $17.36; food supplies, $13.90; sharpening knives, $3.55; telegrams and telephone calls, $2.44; garden supplies and sundries, $8.14	78 64
Manser-Webb Co., fruit and vegetables	122 45
Maple Leaf Milling Co., flour	77 23
Dr. F. McPhedran, medical services for injured servant	8 00
Medland Bros., groceries	313 94
A. A. Moses, repairs	3 05
Murphy, Bradley Mfg. Co., jam	5 80
Murray-Kay, aprons	26 40
Wm. Panton, fruit	9 20
Geo. Ratcliffe, fruit	4 00
Miss E. Robinson, meals supplied to maids during Summer Session	153 31
E. J. Ryan, vegetables	3 80
A. A. Sibbick, vegetables	6 80

88. *Women's Residences.*—Continued.

J. A. Simmers, bulbs and seeds	8 65	
F. Simpson & Sons, fish and fruit	414 40	
Robt. Simpson Co., aprons and uniforms	100 20	
Geo. Sparrow & Co., utensils and repairs	23 00	
Todhunter, Mitchell & Co., coffee	82 50	
A. Whale, repairs	4 50	
Whyte Packing Co., provisions	230 29	
W. J. Wilson, repairs	12 50	
F. J. Wood, subscription	3 00	
University Press, printing and stationery	29 60	
Cleaning and House Service ($4,969.13):		
Allen Mfg. Co., laundry	541 01	
Baillie's Laundry, laundry	135 52	
Baker Carpet Cleaning Co., cleaning rugs	3 60	
Canadian Cleaning Co., cleaning windows	72 00	
A. James, cleauing upholstering	12 45	
Miss L. Livingstone, disbursements:		
Laundry, $7.40; agency fees, $6.00; advertising, 72c.	14 12	
Superintendent's Dept., labour, $1.50; material, $119.86	121 36	
Pay lists, wages of servants, maids, etc.	4,063 22	
Evening Telegram, advertising for maids	5 85	
Furnishings, dishes, cutlery, etc. ($522.71):		
T. Eaton Co., linoleum, linen, etc., dishes and glassware	493 59	
A. H. Harraden, repairs to carpets	11 78	
Robert Simpson Co., cushion covers	6 34	
Albert Whale, upholstering	2 25	
W. Younger, upholstering	8 75	
	$14,514 14	
Less sundry credits: laundry and occasional meals, etc.	243 67	
	$14,270 47	
Superintendent, Miss L. I. Livingstone, 12 mos. to 30 June	1,100 00	
Housekeeper, Miss L. Panton, 12 mos. to 30 June	800 00	
		$21,626 05

89. *Dining Hall.*

Fuel ($371.90):		
Elias Rogers Co.	$371 90	
Light ($456.91):		
Consumers' Gas Co.	456 91	
Cleaning and House Service ($8,742.79):		
Allen Mfg. Co., laundry	289 14	
Pay lists, wages of waiters and other servants	8,453 65	
Food supplies ($44,266.13):		
Antitoxin Laboratory, vegetables	416 90	
Armstrong & Paffard, groceries	4,710 70	
Belle Ewart Ice Co., ice	257 25	
Canada Bread Co., bread	3,241 72	
Canada Flour Mills, flour	288 05	
Geo. Coles, ice cream and cake	28 90	
James Dempster, bread	6 40	
Eby, Blain Ltd., groceries	220 91	
H. P. Eckardt & Co., groceries	1,522 38	
Farmers' Dairy Co., milk	5,227 91	
W. M. Gemmell, fruit	10 80	
Gunns, Ltd., meat	4 67	
Harris Abattoir Co., meat and provisions	12,085 80	
Hart & Ellis, honey	23 10	
R. B. Hayhoe & Co., groceries	17 55	
H. J. Heinz Co., pickles	283 67	
Higgins & Burke, canned goods	55 00	

89. *Dining Hall.*—Continued.

Geo. Lister, fruit and vegetables	1,522 40	
Marshalls Co., honey	92 40	
Mediterranean Products Co., macaroni	15 00	
Medland Bros., groceries	3,084 11	
T. J. Medland, potatoes	91 75	
Murphy-Bradley Mfg. Co., jam	470 65	
Wm. Neilson, ice cream	279 70	
Wm. Patterson & Sons, vegetables	641 00	
E. J. Ryan, fruit and vegetables	1,041 45	
Ryley & Sons, eggs	1,608 90	
Miss V. M. Ryley, petty disbursements	4 72	
F. Simpson & Sons, fish and fruit	1,964 82	
Skeans, Duff Co., coffee	466 27	
Stronach & Sons, fruit and vegetables	308 24	
Todhunter, Mitchell & Co., coffee	389 75	
C. Topping, vegetables	3 00	
Vanluven Bros., syrup	10 00	
Warren Bros. & Co., groceries	81 45	
White & Co., fish and fruit	876 34	
Whyte Packing Co., provisions	3,023 97	
	$44,377 63	
Less received from sale of garbage, etc.	111 50	
	$44,266 13	
Dishes, utensils and sundry expenses ($4,098.33):		
Advance Oil & Supply Co., cleaning material	96 16	
Canadian Wm. A. Rogers Ltd., cutlery	627 01	
John Catto & Son, cloth	11 25	
T. Eaton Co., linen, towelling, curtains, etc.	631 32	
Evening Telegram, advertising *re* attendants	32 22	
Gas Control Co., rent of governor	6 75	
Gowans, Kent & Co., dishes	1,459 98	
Gurney Foundry Co., utensils and repairs	165 09	
Macey Office Equipment Co., chairs	14 85	
Dr. Margaret McAlpine, medical services for injured attendant	6 00	
Miller Mfg. Co., uniforms	62 00	
Miller & Sons, fern pans and flowers	21 30	
J. A. Morgan, napkins	82 96	
Northern Aluminum Co., trays	23 58	
Routery Bros., plastering	6 70	
Miss V. M. Ryley, disbursements: Express, $41.04; office supplies and sundries, $18.96; utensils, etc., $18.78; postage, $1.50	80 28	
Geo. Sparrow & Co., utensils and repairs	123 46	
University Press, pads	1 00	
Superintendent's Dept., labour, $445.07; material, $201.35	646 42	
Hobart Machine ($736.75):		
Hobart Mfg. Co.	736 75	
	$58,672 81	
Superintendent, Miss V. M. Ryley, 12 mos. to 30 June	1,250 00	
		$59,922 81

90. *University College Women's Union.*

(*a*) Maintenance of Building:		
Fuel ($402.84):		
Connell Anthracite Mining Co.	$371 19	
Britnell & Co., teaming	31 65	
Gas and city current ($316.17):		
Consumers' Gas Co.	316 17	
Water ($17.20):		
City Treasurer	17 20	
Repairs and renewals ($450.33):		
Elliott & Brown, excavating and masonry	115 00	

90. *University College Women's Union.*—Continued.

A. Matthews, repairs to chimneys	11 33
Superintendent's Dept., labour, $199.74; material, $124.26	324 00
	$1,186 54
Less sundry credits: repairs	6 30
	$1,180 24
New kitchen and additions to heating system ($2,100.96):	
City Treasurer, permit	2 00
Elliott & Brown, masonry, plastering and concrete flooring	563 25
A. Matthews, roofing	14 37
F. E. Watson, plans	7 50
J. M. Wighton, concrete steps	15 60
Superintendent's Dept., labour, $653.19; material, $845.05	1,498 24
	$3,281 20
(*b*) Housekeeping Account:	
Provisions and housekeeping expenses ($4,682.13):	
P. Andrews, pastry	$64 66
Antitoxin Laboratory, vegetables	105 25
Belle Ewart Ice Co., ice	18 00
C. L. Black, peaches	32 50
Canada Bread Co., bread	215 32
Canada Flour Mills Co., flour	50 51
Christie, Brown & Co., biscuits	40 80
Club Coffee Co., coffee	74 10
T. Eaton Co., supplies	71 06
E. B. Eddy Co., napkins	16 00
Farmers' Dairy Co., milk	505 15
Glassco Ltd., jam	65 86
Gordon, Mackay & Co., towelling	17 52
Grand & Toy, stationery	6 00
G. E. Grove, locks	6 65
Gurney Foundry Co., utensils and repairs	54 93
Harris Abattoir Co., meat and provisions	1,201 02
H. J. Heinz Co., pickles	3 50
W. S. Johnston & Co., printing meal tickets	7 50
Wm. Junor, dishes and glassware	49 50
Geo. Lister, fruit and vegetables	524 18
G. H. Robinson, covers	22 00
F. Simpson & Sons, fish and fruit	242 21
Robert Simpson Co., aprons	7 50
South Hall, Victoria College, sealers	15 00
Warren Bros. & Co., groceries	854 34
Harry Webb Co., bread	151 80
Wm. Weir, eggs	63 00
White & Co., fish	9 15
Miss M. C. Wrong, disbursements: Food supplies, $83.70; utensils and house furnishings, etc., $48.80; towels and table napkins, $32.76; stationery and sundries, $17.76; sharpening knives, $5.00; express, etc., $2.40	190 42
J. M. Wighton, sand	5 00
University Press, printing and stationery	8 75
	$4,699 18
Less received from sale of peaches	17 05
	$4,682 13
Cleaning and House Service ($1,703.15):	
Canadian Cleaning Co., cleaning windows and waxing floors	21 76
Industrial Refuge, laundry	213 81
Royal Laundry, laundry	2 85

90. *University College Women's Union:*—Continued.

Superintendent's Dept., material	29 17	
Pay lists, wages of servants, maids, etc., including allowance for laundry	1,426 38	
Evening Telegram, advertising for maids	8 18	
Misses Buckingham and Boyle, agency fee	1 00	
Magazines and piano hire ($84.33):		
Heintzman & Co., piano hire	37 00	
Albert Britnell, books	17 20	
Sundry subscriptions:		
Globe Printing Co.	1 35	
Mail and Empire	2 60	
Macdonald's Subscription Agency	17 00	
W. H. Smith & Son	9 18	
	$6,469 61	
Lady Resident, Miss M. C. Wrong, 12 mos. to 30 June	1,000 00	
Housekeeper, Miss E. Middleton, 12 mos. to 30 June	650 00	
		$11,400 81
		$94,701 91

X. (91) Royal Ontario Museum.

University's share of maintenance advanced to the Trustees of the Royal Ontario Museum, under 2 Geo. V., Cap. 80	$17,831 37

XI. (92) Central Power Plant.

Fuel ($77,476.81):		
W. H. Cox Coal Co.	$42,555 29	
W. H. Cox Coal Co., towards loss sustained under 1916-17 contract	1,000 00	
		$43,555 29
Doan & Charles		7,602 76
Weaver Coal Co., Inc.		16,782 94
W. G. Adams Coal Co., teaming		49 50
Britnell & Co., unloading, $1,095.62; teaming, $5,139.69; storage, $1,904.81; moving pile, $465.60; ventilators, etc., $37.70		8,643 42
Canadian Pacific Railway Co., demurrage on cars		378 00
Franceschini & Co., teaming		13 50
R. Robertson & Son, retaining wall		117 53
W. H. Thomson, moving, $27.00; teaming, $3.00		30 00
Superintendent's Dept., labour, $167.92; material, $135.95		303 87
City electric current ($1,719.82):		
Toronto Electric Light Co.		1,719 82
Water ($193.35):		
City Treasurer		193 35
Repairs and renewals, engineers' supplies and miscellaneous items ($4,312.08):		
Britnell & Co., cartage of brick		12 00
Canadian Cleaning Co., cleaning windows		6 00
Canadian H. W. Johns-Manville Co., pipe covering		334 34
Card & McConnell, exterminating rats		10 00
R. Robertson & Sons, repairs to boilers, etc.		613 21
John Rydall, repairs		10 75
The Superintendent, petty disbursements		3 62
Superintendent's Dept., labour, $1,142.36; material, $2,155.41		3,297 77
Sundry advertisements *re* fuel tenders, etc.:		
Evening Telegram		9 06
Globe Printing Co.		1 40
Mail and Empire		3 50
News Publishing Co.		3 50
Toronto Daily Star		4 83
Toronto World		2 10

92. *Central Power Plant.*—Continued.

Engineers, firemen and helpers ($8,795.50):		
Chief Engineer, Chas. Moseley, Sr., 12 mos. to 30 June....	2,000 00	
Assistant engineers at $80.00 per month:		
C. S. Moseley, 12 mos. to 30 June, $960.00; overtime, 8 hours, $2.66; bonus, 7 months at $5.00, $35.00..	997 66	
W. Smith, 12 mos. to 30 June, $960.00; bonus, 7 months at $5.00, $35.00	995 00	
L. McMaster, 11 mos., 20 days to 30 June, $933.33; overtime, 4 hours, $1.33; bonus, 7 mos. at $5.00, $35.00	969 66	
Firemen and helpers:		
At $70.00 per month	2,500 30	
At $65.00 per month	1,011 88	
At $60.00 per month	221 00	
Bonuses at $5.00 per month	100 00	
		$92,497 56

XII. (93) Contingencies.

Expenses *re* opening of Connaught Laboratories ($524.04):		
Dr. Simon Flexner, travelling expenses	$30 00	
Provincial Motors Livery, hire of coaches	100 00	
W. E. Pike, rent of tents and canopies	117 50	
Geo. Coles, catering	70 00	
University Press, printing	49 90	
Wilder Cartage Co., cartage	30 00	
R. J. Campbell, show cards	12 45	
Attendants: B. Double, $5.00; R. Chapman, $3.00; F. Scruby, $3.00; R. Lines, $3.00; C. Smith, $3.00; F. Taylor, $1.00	18 00	
Dr. J. G. Fitzgerald, disbursements:		
Lantern operator, $10.00; gasoline, $2.10; twine, 75c.	12 85	
Superintendent's Dept., labour, $63.81; material, $19.53....	83 34	
Armorial Bearings, fees in connection with:		
Charles H. Athill, Richmond Herald	425 03	
Engrossing resolutions:		
Miss I. M. Sutherland, to Colonel A. E. Gooderham, *re* Connaught Laboratories	100 00	
Robert M. Williams, to families of late Professors, $14.00; to Prof. A. B. Macallum, $6.50	20 50	
Dunlop's, Toronto, flowers for funeral of late Prof. Fletcher..	16 00	
O'Keefe Co., spring water for board meetings (3 years) ...	23 18	
Sir Edmund Walker, Chairman's disbursements for postage..	3 04	
Connell Anthracite Mining Co., fuel supplied to University Y. M. C. A.	216 65	
Medals ($16.79):		
P. W. Ellis & Co. $106 79		
Less received from donors 90 00		
Amount spent on cost and engraving of medals over and above receipts	16 79	
Association of Urban Universities, annual dues	10 00	
Society for the Promotion of Engineering Education, dues ...	10 00	
Shipping instruments loaned to United States Shipping Board ($7.98):		
Superintendent's Dept., labour, $3.88; material, $4.10	7 98	
Sundry small disbursements	7 60	
		$1,380 81

XIII. (94) Capital Account Charges.

Accountant, Supreme Court of Ontario, ninth annual payment on debenture issue of 1909	$25,260 00	
Accountant, Supreme Court of Ontario, third annual payment on debenture issue of 1915 *re* Hart House	5,975 00	
Toronto General Hospital, seventh annual payment on debenture issue of 1911 *re* Pathological Building	6,568 00	

94. *Capital Account Charges.*—Continued.

Toronto General Hospital, seventh annual payment on debenture issue of 1911 *re* grant to Toronto General Hospital ..	15,157 00	
Wardrop Estate, third instalment on purchase of house, No. 8 Queen's Park	750 00	
Shoenberger Estate, second instalment on purchase of house, No. 184 College Street	500 00	
Purchase of Beatty Leasehold:		
E. M. Chadwick & C. W. Beatty, trustees, consideration for surrender of Beatty leasehold	1,066 93	
City Treasurer, taxes 1918	509 88	
Repayment to Endowment on account of advance for construction of Central Power House, tunnels and equipment ...	20,208 00	
		$75,994 81

XIV. (95) Special Research.

Medicine.

Pathology, Chemistry, Medicine and Surgery ($2,499.42):		
Laboratory Assistant, F. Thibault, 5 days at $2.00	$10 00	
Animal attendant, J. O'Donell, 3 months at $5.00	15 00	
Cages and food for animals ($399.15):		
F. F. Bowell, trays	92 25	
T. G. Rice Wire Mfg. Co., cages	306 90	
General Equipment ($2,075.27):		
Carnegie Nutrition Laboratory, apparatus	1,025 02	
Ingram & Bell, equipment	748 25	
Dr. F. W. Rolph, travelling expenses	302 00	
Psychiatry ($480.00):		
Keeping records of experimental work:		
Miss D. M. Secord, 8 mos. to 30 June at $60.00 per mo.	480 00	
		$2,979 42

Applied Science.

High tension transmission lines ($1,127.30):		
Laboratory assistant, W. B. Buchanan, 8 mos. to 30 June, at $125.00 per month	$1,000 00	
Expenses ($127.30):		
Driver-Harris Co., wire	118 60	
Miss F. McMechan, typing	8 70	
Heat insulation ($489.71):		
Bristol Co., thermometer	24 50	
R. Fullerton, fan	7 00	
Galloway, Taylor & Co., castings	82 11	
H. J. Green, thermometers	37 52	
J. M. Wighton, masonry	5 00	
Freight charges	2 10	
Superintendent's Dept., labour, $140.81; material, $190.67	331 48	
Reinforced concrete ($96.18):		
Drafting:		
H. A. J. Aldington	3 50	
T. Leach	55 05	
O. Margison	9 00	
G. L. Wallace	5 63	
F. E. Watson	4 00	
W. S. Wickens	19 00	
Milling of Ontario graphite ore ($136.67):		
Bausch & Lomb Optical Co., lens	23 46	
Canadian Laboratories, apparatus	54 60	
L'Air Liquide Society, valve	3 00	
Lever Bros., gas	4 50	
R. J. McCullagh, specimens	4 40	
Metallurgical Engineering, Dept. of, tube	4 50	
Norton Co., supplies	10 70	
Photography, Dept. of, prints	12 35	
Ward, Leonard Electric Co., rheostat	6 33	

95. *Special Research.*—Continued.

A. H. Winter-Joyner, ammeter	9 48	
Petty items (2)	3 35	
Catalysis ($1,230.00):		
Laboratory assistant, J. V. Dickson, 8 Nov. to 30 June, at $125.00 per month	1,220 00	
Expenses ($10.00):		
Prof. M. C. Boswell, files purchased	2 00	
Miss F. McMechan, typing	8 00	
Price-Stewart Research ($29.68):		
Brown & Sharpe Mfg. Co., blades	4 83	
Driver-Harris Co., steel	4 12	
Students' Book Dept., book	1 60	
Trumbull Electric Mfg. Co., panel	16 35	
Freight charges	2 78	
Arkley Research ($276.35):		
Williamson Heater Co., boiler	276 35	
Expenses, contingencies, etc. ($215.00):		
University Press, printing bulletin	215 00	
		$3,600 89

Aerodynamics.

Expenses ($3,272.13):		
Aikenhead Hardware, bolts	$11 50	
Cambridge Scientific Instrument Co., aerodynamic balance	1,563 69	
Canadian S.K.F. Co., blocks	24 60	
Dominion Bridge Co., steel	363 00	
Hamilton Gear & Machine Co., shafting	47 05	
Jones & Glassco Co., sprocket, etc.	142 06	
Long Propeller Co. of America, propeller	130 41	
Metallic Roofing Co., iron work	235 00	
J. H. Parkin, cablegram	5 01	
J. F. Raw, blue prints	3 72	
Students' Book Dept., books	51 95	
Freight charges, etc., $8.04; marine insurance, $50.33	58 37	
Superintendent's Dept., labour, $403.53; material, $232.24	635 77	
		$3,272 13

Physiotherapy.

Expenses ($999.36):		
Hart House Research Committee, expenditures by committee of Physiotherapy Research: Instruments, books, etc., $458.81; wages, $220.71; outfitting, $130.14; food for animals, $128.46; animals, $20.75; gas, $5.61; sundries, $34.88	$999 36	
		$999 36

Physiology.

Laboratory assistant, L. G. Kilborn, 2 mos. at $80.00 per mo.	$160 00	
Equipment ($983.17):		
Canadian General Electric Co., motor, etc.	59 31	
Geo. M. Hendry Co., oven and pump	89 92	
Ingram & Bell, centrifuge, syringes, etc.	79 65	
International Equipment Co., centrifuge and tubes	145 80	
E. Leitz, incubator	39 47	
Lyman Bros. & Co., chemicals	102 71	
Arthur H. Thomas Co., chemicals and glassware	437 05	
Freight charges	4 26	
Superintendent's Dept., labour	25 00	
		$1,143 17
		$11,994 97

Medical Research (Original Account: McPhedran Subscriptions)

Salaries ($900.00):		
Dr. H. K. Detweiler, Research Fellow, 12 mos. to 30 June (paid also in Pathology)	$900 00	

95. *Special Research.*—Continued.

Publication of Report ($61.77):		
Reprints:		
Canadian Medical Association	11 70	
Commercial Press	7 79	
C. V. Mosby Co.	24 10	
Rockefeller Institute for Medical Research	18 18	
Purchase of animals, etc. ($45.73):		
Christie, Brown & Co., dog biscuits	8 88	
Ingram & Bell, supplies	12 60	
Prof. J. J. Mackenzie, disbursements:		
Rabbits, $16.50; ether and brushes, $1.90; food for animals, $1.00	19 40	
Freight charges	4 85	
Care of animals ($60.00):		
J. O'Donnell, 12 mos. to 30 June	60 00	
		$1,067 50

Pathology: Special Investigation Subscription.

Laboratory assistant, Miss M. Wessels, 2 mos. at $70.00 per mo., $140.00; 7 mos. 8 days at $75.00 per mo., $542.50..	$682 50	
		$682 50
		$13,744 97
Less charged to Special Funds (Schedule 4*a*)		1,750 00
		$11,994 97

XV. (96) Toronto General Hospital, Special Grant.

Trustees, Toronto General Hospital, grant voted by Board	$25,000 00	
		$25,000 00
		$1,076,224 95

APPENDIX IV.

University Press.

Transactions for year ending 30th June, 1918.

Receipts, 1917-18		$42,453 36	
Accounts receivable on 30th June, 1918		4,718 59	
			$47,171 95
Expenditures, 1917-18 (detailed below)		$43,519 97	
Accounts written off as uncollectable		4 65	
		$43,524 62	
Value of supplies bought in advance and on hand 30th June, 1918	$2,811 33		
And work in progress	309 95		
	$3,121 28		
Less liabilities	817 00		
		2,304 28	
			41,220 34
			$5,951 61
Deduct:			
Expenditures on additions to type and equipment, charged to year's receipts (detailed below)		$330 43	
Purchases in advance (net) as above		2,304 28	
			2,634 71
			$3,316 90
Balance of 30th June, 1917			5,388 73
At credit of account 30th June, 1918 (Schedule 4b)			$8,705 63

Details of Expenditure, Operating Account.

R. J. Hamilton, Manager, 12 months to 30th June, $1,800.00; allowance for clerical assistance, $200.00	$2,000 00	
Pay lists, wages of employees	21,289 64	
		$23,289 64
Supplies and General Maintenance ($20,230.33):		
Alexander & Cable, lithographing	$25 00	
Anstey & Bromley, binding and ruling	620 96	
Art Metropole, supplies	22 15	
D. A. Balfour Co., carbon paper	69 95	
Barber-Ellis, paper	1,167 28	
Beardmore Belting Co., belting	5 70	
R. C. Bourne, leather	135 00	
Wm. Briggs, printing and electrotypes	57 00	
Brigdens, half-tones	190 98	
Brown Bros., paper and supplies	2,384 21	
Buntin-Reid Co., paper	1,025 30	
The Bursar, postage supplied	203 00	
Chas. Bush, ink	326 30	
B. Cairns, rubber stamps	5 25	
Canada Metal Co., metal	180 75	
Canada Printing Ink Co., ink	153 86	
Canada Paper Co., paper	346 97	
Cannon Canadian Co., paste	6 90	
E. Carroll, grinding knives	8 80	
Copeland-Chatterson Co., paper	8 42	
Copp, Clark Co., examination books, etc.	75 62	
Dennison Mfg. Co., labels	20 34	
John Dickinson Co., paper	445 73	
Dominion Paper Box Co., cases	47 23	
W. J. Gage & Co., envelopes and supplies	166 47	

Details of Expenditure, Operating Account.—Continued.

Gill Bros., ruling	130 50	
Grand & Toy, stationery and supplies	167 98	
R. J. Hamilton, disbursements:		
Cleaning and material, $93.38; postage and carfares, $16.96; special messenger service, $10.00; express and freight, $6.78; laundry, $3.68; stereotype supplies and sundries, $13.54	144 34	
Imperial Oil Co., oil	20 49	
Lanston Monotype Machine Co., repairs	446 52	
H. J. Logan, wire	19 05	
Lowe-Martin Co., cards	10 78	
Manton Bros., paper	13 50	
A. R. MacDougall & Co., pencils	32 91	
Menzies & Co., glucine	7 20	
Miller & Richard, repairs	12 00	
Milne-Bingham Printing Co., printing	903 40	
J. L. Morrison Co., repairs	6 35	
National Typewriter Co., carbon paper, stencil, etc.	295 18	
Paper Sales Co., paper	58 62	
Paste & Gum Co., paste	16 20	
Printers' Specialties, metal	27 79	
Provincial Paper Mills, paper	6.996 56	
Ratcliff Paper Co., paper	101 50	
R. Robertson & Sons, cutting doorway	56 59	
Routery Bros., plastering	10 00	
Standard Embossing Co., embossing	248 40	
Students' Book Dept., stationery and supplies	141 94	
Sun Insurance Office, insurance premium on paper stored	21 82	
Telfer Mfg. Co., boxes	75 75	
Toronto Delivery & Cartage Co., cartage	91 29	
Toronto Type Foundry, repairs	14 96	
United Paper Mills, paper	1.054 06	
Warwick Bros. & Rutter, paper	53 28	
Weatherhead Paper Co., paper	114 96	
Whaley, Royce & Co., engraving	15 00	
Wickett & Smith Co., gold leaf	37 75	
Wilson, Munroe & Co., paper	308 13	
Items under $5.00 (8)	22 26	
Superintendent's Dept., labour, $102.42; material, $100.24	202 66	
Heat, light and power charges under report adopted by Board:		
Heat, $92.50; electric current, $300.00; gas, $116.44	508 94	
Advertising:		
The School	60 00	
Torontonensis, 1918	12 50	
Trinity University Review	10 00	
University Y.M.C.A.	15 00	
The Varsity	40 00	
Wycliffe College Magazine	5 00	
		$20,230 33
		$43,519 97

Details of Expenditure, Plant Account.

Miller & Richard, gas attachment	$88 54	
O. K. Furniture Co., desk	27 50	
Stephenson, Blake & Co., type	11 20	
Toronto Type Foundry Co., type and equipment	58 19	
Superintendent's Dept., motor	145 00	
		$330 43

APPENDIX V.

Antitoxin Laboratory.

Transactions for year ending 30th June, 1918.

Receipts during 1917-18	$80,951 77	
Accounts receivable on 30th June, 1918	10,327 44	
		$91,279 21
Expenditures during 1917-18 (detailed below)	$63,377 94	
Sundry refunds during year	143 10	
Accounts written off as uncollectable	21 11	
		63,542 15
		$27,737 06
Amount of Surplus Account 30 June, 1917	$21,639 62	
Expenditure therefrom prior to creation of Research Fund	300 00	
	$21,339 62	
Interest allowed	457 21	
Balance from operating account, 30 June, 1918, as above	27,737 06	
	$49,533 89	
Less Connaught Laboratories Research Fund, opened as separate account	25,000 00	
At credit of Surplus Account, 30 June, 1918, Schedule 4*b*		$24,533 89

Details of Expenditure, Operating Account.

Salaries, wages and occasional assistance ($18,671.03):	
Dr. J. G. Fitzgerald, Director, 12 mos. to 30 June (paid also in Hygiene)	$3,150 00
Dr. R. D. Defries, Assistant Director, 12 mos. to 30 June (paid also in Hygiene)	1,800 00
Dr. T. J. Melanson, Farm Superintendent and Veterinarian, 27 April to 30 June, at $125.00 per month	270 83
Dr. H. C. Cruikshanks, Bacteriologist, 28 May to 30 June, at $100 per month	110 00
Office and Laboratory Staff ($8,783.24):	
Miss L. Hanna, 12 mos. to 30 June	900 00
C. Greenwood, 8 mos. to 30 April	840 00
Wm. Knowles, 12 mos. to 30 June	750 00
F. Scuby, 12 mos. to 30 June, $700.00; overtime, $5.50	705 50
Miss H. Finegan, 12 mos. to 30 June, $650.00; overtime, $3.00	653 00
Miss E. Mitchell, 7 mos. at $50.00; 5 mos. at $55.00; to 30 June, $625.00; overtime, $1.50	626 50
J. Sherman, 12 mos. to 30 June, $600.00; overtime, $3.20	603 20
Miss H. Lamont, 10 mos. to 30 April, $600.00; overtime, $1.50	601 50
James Smith, 12 mos. to 30 June, $420.00; overtime, $3.00	423 00
Mrs. Gratton, 12 mos. to 30 June, $360.00; overtime, $1.00	361 00
Miss M. Slute, 7 mos. at $27.50; 5 mos. at $30.00; to 30 June, $342.50; overtime, $14.56	357 06
Miss E. Slute, 7 mos. at $27.50; 5 mos. at $30.00; to 30 June, $342.50; overtime, $13.81	356 31
R. Chapman, 17 days at $1.50; 24 Sept. to 30 June, at $35.00 per month, $348.66; overtime, $7.20	355 86
D. Wilson, 4 Sept. to 30 June, at $25.00 per month, $246.66; overtime, $8.75	255 41
Miss G. Mivell, 14 Nov. to 30 June, at $25.00 per month, $187.50; overtime, $12.18	199 68

Details of Expenditure, Operating Account.—Continued.

Miss L. Love, 4 Feb., to 30 June, at $40.00 per month	197 50	
Miss M. McCausland, 19 Dec. to 30 June, at $25.00 per month, 161.25; overtime, $15.13	176 38	
Miss E. Reid, 19 Dec. to 30 June at $25.00 per month, 161.25; overtime, $9.78	171 03	
Miss E. Noble, 1 Feb. to 30 June at $25.00 per month, $125.00; overtime, $14.77	139 77	
Miss A. Tushingham, 20 Feb. to 30 June at $25.00 per month, $108.04; overtime, $2.50	110 54	
Farm and Stable Staff ($3,177.86):		
B. Double, 12 mos. to 30 June, $700.00; overtime, $2.40	702 40	
C. Smith, 12 mos. to 30 June, $600.00; overtime, $4.60	604 60	
F. Taylor, 9 mos. to 31 March, $405.00; overtime, $1.80	406 80	
R. Sim, 5 mos. to 30 Nov.	375 00	
S. Little, 12 mos. to 30 June, $360.00; overtime, $3.20	363 20	
W. Fenton, 12 mos. to 30 June (part time)	300 00	
K. Little, 12 mos. to 30 June, $240.00; overtime, $3.20	243 20	
N. Fenton, 13 Aug. to 15 June at $20.00 per month	182 66	
Casual assistance ($1,379.10):		
Sundry assistants employed for limited periods, and emergency work	1,379 10	
		$18,671 03
Laboratory supplies and general maintenance ($44,073.38):		
Aikenhead Architectural Metal Works, stable fittings	$15 50	
Aikenhead Hardware, vacuum cleaner, fire extinguisher and hardware	109 63	
Allcock, Laight & Westwood Co., needles	45 50	
Thomas Alpine, hay, $100.00; sprayer, $50.00	150 00	
Atlas Stationery Corporation, filter paper	357 56	
F. S. Banks & Co., syringes, etc.	6,399 20	
Dr. E. J. Banzhaf, vaccine	2,668 32	
E. Barker, horse	50 00	
H. Barnard, team of horses for farm work, $475.00; horses, 5 at $55.00; 5 at $50.00; 2 at $45.00	1,090 00	
Bell Telephone Co., telephone service, 7 March to 30 June	9 55	
Bogert & Hopper, boxes	178 16	
F. H. Bonner, oats	450 00	
C. A. Bradshaw, shanty	45 00	
T. Brown, horse	30 00	
The Bursar, postage supplied	422 00	
Wm. Burbidge, horse	50 00	
W. Buse, blacksmithing	11 80	
T. W. Campion, rabbits	7 50	
Canada Needle & Fishing Tackle Co., needles	32 00	
Canadian Milk Products, milk stock	24 00	
Canadian Bag Co., bags	13 00	
John Carlyle, table	5 50	
Central Bird Store, white mice	7 25	
A. Churly, blacksmithing	6 15	
City Treasurer, taxes, Barton Avenue stable	38 29	
F. W. Claasens, apparatus	14 00	
Geo. Coles, refreshments for picnic	15 10	
Collett-Sproule, boxes	175 95	
Conger-Lehigh Coal Co., coal	52 54	
Consumers' Gas Co., gas	168 36	
S. Coppard, hay	255 76	
Corning Glass Works, jars	29 76	
Cox & Andrew, signs	17 00	
Wm. Crabb & Co., needles	519 14	
S. E. Cuthbert, rent of Barton Avenue stable, 1 year to 8 Oct., 1918	60 00	
Cutten & Foster, automobile equipment	14 00	
Major Dean, hay	176 69	
Dr. R. D. Defries, travelling expenses, $142.72; slides purchased, $10.30	153 02	
H. Denby, horse	35 00	
Detroit Medical Glass Works, tubes	23 65	

Details of Expenditure, Operating Account.—Continued.

Dominion Express Co., express charges	444 63
Dominion Glass Co., bottles and vials	1,635 16
B. Double, board of farm help	435 20
E. W. Duke, bags, $50.00; baskets, gasoline, etc., $34.90	84 90
T. Eaton Co., furniture, harness and supplies	619 32
Eimer & Amend, filter paper and scales	67 43
Faramel Ltd., faramel	5 40
F. Farr, horses, 1 at $50.00; 1 at $45.00; meat, $56.14	151 14
Fiddes & Hogarth, repairs	28 45
J. G. A. Filion, translating	15 00
Miss H. Finegan, travelling expenses	63 77
Firstbrook Bros., boxes, $133.10; sawdust, $12.00	145 10
J. Fisher, blacksmithing	24 75
Dr. J. G. Fitzgerald, disbursements: Purchase of calves, $674.30; guinea pigs, rabbits, etc., $126.95; cartage, express, freight, etc., $309.02; laboratory supplies, $194.31; car supplies, gasoline, etc., $102.52; cable, telegram and telephone messages, $74.21; carfares, $58.24; postage and stationery, $18.57; stable and farm supplies, $17.90; subscription to periodicals, $11.11; Christmas gratuities, $5.80; sundries, $18.41	1,611 34
W. J. R. Fowler, horses, 1 at $55.00; 1 at $40.00; rabbits, $48.00; medical attendance for horses, $13.00	156 00
Fraser Stain-Crafts, chart	18 00
A. S. Fry, hay rack	21 50
Gilliland Laboratories, Inc., vaccine, etc., $3,142.58; testing antitoxin, $1,700.10	4,842 68
Gooderham & Worts, barrels	8 00
Goodyears' India Rubber Selling Co., bulbs	401 80
Grand Trunk Railway System, freight charges on oats	328 94
Great Northwestern Telegraph Co., telegrams	43 79
Emil Greiner Co., tubes and glassware	478 56
Gutta Percha & Rubber Co., corks and covers	641 07
Geo. H. Hackett, gravel, $3.50; rent of planner, $2.00	5 50
J. F. Hartz Co., sterilizers, etc.	102 75
G. Henderson, horse	40 00
R. F. Hicks, oats	69 30
Hogg & Lytle, oats	1,119 46
G. H. Hooper, repairs	20 00
Imperial Oil Co., gasoline and oil, $989.03; oven, $32.00	1,021 03
Ingram & Bell, incubator, glassware and supplies	314 97
W. E. Irons & Co., stencil	6 50
Wm. James, hay	675 36
Journal of Infectious Diseases, subscription	5 88
K. & S. Canadian Tire, Ltd., auto tires	94 85
Kilgour Bros., boxes	144 50
H. W. Knight & Bro., tank	21 80
J. G. Knox, carpentry work	14 00
Wm. Knowles, travelling expenses	9 05
R. Laidlaw & Co., sawdust	14 55
Lake Simcoe Ice Supply Co., ice	256 32
R. Line, horses, 1 at $60.00; 1 at $55.00; 1 at $50.00; 3 at $45.00; 3 at $40.00; 3 at $35.00; 1 at $30.00; $555.00; dressings, calves, etc., $25.47	580 47
R. A. Lister & Co., repairs	36 22
Lockport Cotton Batting Co., batting	72 32
A. R. Lundy, gate	8 20
Lyman Bros. & Co., chemicals	44 51
Macey Office Equipment Co., chair	8 55
Mallinckrodt Chemical Works, chemicals	1,188 29
Map Specialty Co., map	12 50
Moore Bros., pipe, hardware, etc.	218 50
Morgan Co., tubes	83 10
W. B. Muir, stove	22 10
McBride's Garage, auto hire	10 00
McColl Bros. & Co., oil and soap	167 70

Details of Expenditure, Operating Account.—Continued.

W. L. McCullough Co., grain crusher	102 15
McDonald & Warburton, repairs	5 29
W. H. McKenzie, lumber	167 34
McKenzie Bros., piping	81 89
J. J. McLaughlin, demijohns	12 50
National Equipment Co., pump and repairs	29 25
New York City, Department of Health, vaccine and serum	807 31
North Western Steel & Iron Works, sterilizer	132 33
Office Specialty Mfg. Co., stool	10 50
Ontario Rubber Co., boots	16 00
Page Wire Fence Co., gate	12 80
Parisian Laundry, laundry	200 37
Paste & Gum Co., paste	6 42
Jas. W. Paton, alcohol	19 50
Claude Pearce, repairs	14 60
Porter Bros., straw	222 81
Mrs. D. Potton, board of farm help, $115.00; horse, $35.00	150 00
Powers-Weightman-Rosengarten Co., chemicals	103 50
Provincial Treasurer, automobile licenses	20 00
Ramsay Contracting Co., concrete work on coal bins and root house	1,791 65
Remington Typewriter Co., typewriter and desk	140 65
Richards Glass Co., ampoules, etc.	40 85
Rippon Mfg. Co., frame	25 50
H. B. Schmidt, oats	515 87
Mrs. F. Scruby, board of farm help	57 15
Sheet Metal Products, cans	45 60
Mrs. J. Sherman, board of farm help	228 05
R. Sim, hay, $206.89; rent of farm, etc., $170.00	376 89
C. Smith, horse, $65.00; clipping horses, $27.00	92 00
Geo. Sparrow & Co., containers	6 00
O. B. Stanton & Wilson Co., cases and blank books	17 75
Steele, Briggs Seed Co., spades	9 00
Geo. Stephenson, hay	131 51
Sterling Action & Keys, Ltd., boxes	145 00
Stuart & Foster, cylinder	50 15
Students' Book Dept., hooks	8 00
Wm. Tafts, bed	9 50
Wm. Taylor, horse	45 00
Arthur H. Thomas Co., filter paper	61 89
Thompson, Ahern & Co., duty and shipping charges	50 83
S. M. Thorne, paper and twine	129 50
Toronto Nurseries, plans	50 00
Township of York, taxes, 1917, Connaught Laboratory	229 14
Universal Car Co., automobile accessories, repairs, etc.	685 88
University Press, stationery and supplies	769 53
W. A. Wallace, straw	50 67
W. O. Ward, meat	68 51
Watson Ltd., screens	18 75
Whitall, Tatum Co., chemicals, thermometers, etc.	84 01
G. K. White, milk	107 65
A. R. Williams Machinery Co., engine	98 00
John Williamson, fodder	52 55
Miss F. Withrow, stove	14 75
Woodbridge & Vaughan Telephone Co., 1 year's service to 25 July, $23.00; messages, $23.90	46 90
Roy Woods, hay	102 83
Wrought Iron Range Co., boilers and utensils	93 39
Items under $5.00 (21)	69 21
Superintendent's Dept., labour, $1,113.26; material, $1,239.36	2,352 62
Construction of Dam at Farm ($1,576.54):	
W. Calder & Son, tongs	3 75
Dr. R. D. Defries, disbursements: sand, $15.75; gravel, $13.50; hardware, $3.52	32 77
Drummond, McCall & Co., valve	73 50
F. H. Echlin, cement	189 00
File's Motor Express, cartage	15 50

Details of Expenditure, Operating Account.—Continued.

Hardware Co. of Toronto, bolts		7 88	
E. C. Hurlbut, lumber		96 03	
Levy & Westwood Machinery Co., hammer		25 50	
Rice Lewis & Son, tools and hardware		77 20	
Maple Sand, Gravel & Brick Co., sand and gravel		78 34	
Pedlar People, culvert		7 70	
Mrs. J. Sherman, board of workmen		43 00	
Worth Engineering Co., apparatus parts		19 85	
Wages of workmen		906 52	
		$64,320 95	
Less sundry credits:			
Received from sale of farm produce	$684 89		
Received from sale of calves and sheep	76 57		
Linde Canadian Refrigeration Co., allowance for cylinders, repairs, etc.	21 60		
Gilliland Laboratories, Inc., bulbs purchased	63 95		
Connaught Laboratories Research Fund, stabling and feeding horses	96 00		
		943 01	
			$63,377 94

Connaught Laboratories Research Fund.

Amount of account opened by transfer from Antitoxin Laboratory Surplus Account		25,000 00
Interest allowed		687 50
		$25,687 50
Expenditure as detailed below		1,503 58
At credit of account 30 June, 1918 (Schedule 4*b*)		$24,183 92

Details of Expenditure.

Salaries ($675.90):		
Research Associate, Dr. A. H. Caulfeild, 12 Feb. to 30 June at $1,500.00 per annum	$575 90	
Research assistant, Chas. Greenwood, 1 May to 30 June, at $50.00 per month	100 00	
Laboratory supplies and general maintenance ($827.68):		
Aikenhead Hardware, netting	20 50	
Antitoxin Laboratory, stabling and feeding horses	96 00	
Berkefield Filter Co., cases	14 12	
The Bursar, postage supplied	3 00	
T. W. Campion, pigeons	11 80	
Dr. A. H. Caulfeild, travelling expenses	139 45	
Eimer & Amend, glassware and supplies	104 44	
Dr. J. G. Fitzgerald, disbursements: animals, $51.45; food for animals, $8.06; laboratory supplies, $22.85; express, $6.80; sundries, $6.93	96 09	
Ingram & Bell, sterilizer, glassware and supplies	115 42	
Office Specialty Mfg. Co., office furniture	105 61	
Parisian Laundry Co., laundry	5 78	
John Williamson, fodder	22 30	
Wrought Iron Range Co., plate	3 00	
Petty items (5)	5 10	
Superintendent's Dept., labour, $45.35; material, $39.72	85 07	
		$1,503 58

APPENDIX VI.

Superintendent's Stores and Sundry Labour Account.

Ledger balance 30th June, 1917		$3,135 87
Purchases during 1917-18:		
Advance Oil & Supply Co., brushes, oil and cleaning material	$159 12	
Aikenhead Hardware, hardware	644 30	
Aikenhead Architectural Metal Works	52 20	
Babcock & Wilcox, tubes, etc.	107 20	
Baines & Peckover, iron and steel	68 85	
J. T. Baker Chemical Co., alcohol	18 72	
Wm. Bartlett & Son, shades	288 33	
Beardmore Belting Co., belting	26 99	
Belden Mfg. Co., wire	21 20	
Belling Electric, heaters	66 00	
Booth-Coulter Copper & Brass Co., fire extinguishers	100 20	
Britnell & Co., lumber	268 14	
W. Calder & Son, plates	15 50	
Cameron & Campbell, lumber	21 75	
Canada Hardware, hardware	1,096 52	
Canada Pipe & Steel Co., pipe, etc.,	1,787 28	
Canadian H. W. Johns-Manville Co., pipe covering	176 57	
Canadian Laco-Phillips, lamps	515 91	
Canadian Powers Regulator Co., repair parts	23 30	
Channell Chemical Co., mops	108 00	
Cox & Andrew, signs	26 00	
Dawson & Co., fuses	312 80	
Dearborn Chemical Co., boiler compound	179 45	
H. Disston & Sons, saws	5 19	
Dominion Bridge Co., steel	3,304 30	
Dominion Radiator Co., steamfitters' supplies	930 28	
Driver-Harris Co., metal stripping	13 87	
C. A. Dunham Co., traps	2,139 44	
Dunlop Tire & Rubber Goods Co., hose	42 11	
Eagle Lock Co., locks	32 66	
T. Eaton Co., linen, towelling, mats, etc.	446 46	
H. P. Eckardt & Co., cleaning material	78 85	
E. B. Eddy Co., matches and toilet paper	353 16	
Edison Storage Battery Co., cells	134 40	
Eimer & Amend, alcohol	94 28	
Elliot Wood Worker, motor	140 00	
Factory Products, electrical supplies	2,638 48	
Ferrier Wire Goods Co., screens	6 85	
Garlock Packing Co., asbestos, etc.	325 94	
W. H. Gibson, brooms	42 00	
Gillespie Bros., valves	40 00	
Gordon, Mackay & Co., cloth, towels, etc.	163 80	
Gutta Percha & Rubber, Ltd., belting	7 40	
T. H. Hancock, lumber	3,702 16	
Hardware Co. of Toronto, hardware	397 07	
Geo. M. Hendry Co., chalk, etc.	83 96	
High Grade Oil Co., soap	363 83	
H. S. Howland Sons & Co., screws, etc.	30 41	
Imperial Oil, candles	8 40	
John Inglis, Co., boiler tubes	72 00	
Interlake Tissue Mills, towels	367 50	
Jefferson Glass Co., glass	6 75	
Johnson Temperature Regulating Co., repair parts	36 61	
Warden King, radiators and pipe	935 67	
R. Laidlaw & Co., lumber	16 57	
John Leckie, rope	23 79	
L. Levasseur & Co., varnish	216 34	
Lever Bros., soap	36 00	
Lyman Bros. & Co., chamois and chemicals	44 53	
John Macdonald & Co., cloth, towelling, etc.	55 59	
N. Macdonald, emery paper	6 99	

Superintendent's Stores and Sundry Labour Account.—Continued.

Marshall & Son, moving lockers	6 00	
Matthews Bros., frames	19 55	
A. Matthews, roofing material	118 03	
McArthur, Irwin, Ltd., sizing	25 97	
McColl Bros. & Co., oil	152 11	
McDonald & Willson, cable, fuses, lamps, etc.	454 68	
McKay School Equipment Co., ink wells	7 00	
Geo. B. Meadows Co., screens	10 00	
J. Mehr & Son, boiler tubes	233 00	
H. Morris Crane & Hoist Co., chain block	25 00	
Jas. Morrison Brass Mfg. Co., plumbers' supplies	1,367 11	
Mott Co., faucets	253 04	
A. Muirhead Co., painters' supplies	261 46	
Murphy Iron Works, furnace parts	410 34	
National Electric Heating Co., heaters	31 20	
Northern Electric Mfg. Co., cable, etc.	994 13	
Ontario Lime Co., cement and pipe	43 40	
Otis-Fensom Elevator Co., cable	17 50	
C. B. Owens, vacuum cleaner	42 00	
E. F. Phillips Electricial Works, cable	444 83	
N. L. Piper Railway Supply Co., oil	47 75	
Queen City Brass Foundry, castings	24 43	
Queen City Sales Co., brooms	115 46	
Roofers' Supply Co., roofing material	30 05	
John Rydall, forgings	76 95	
Sanderson Pearcy & Co., painters' supplies	3,198 73	
Scythes & Co., waste	19 06	
Shelton Electric Co., heaters	17 12	
Signal Systems, telephones	20 62	
Robert Simpson Co., wall paper	120 03	
Smart-Turner Machine Co., valves	39 00	
John B. Smith & Sons, lumber	1,438 89	
Sovereign Oil Co., soap	5 75	
Standard Foundry Co., castings	53 56	
Standard Sanitary Mfg. Co., plumbers' supplies	33 26	
Talbot & Talbot, mop cloths	26 25	
John Taylor & Co., soap	63 00	
H. C. Thomas, brackets	47 00	
S. M. Thorne, mop cloths	152 37	
Toronto Iron Works, steel tank	97 00	
Toronto Wood Turning Works, patterns	59 80	
Triplex Weather Strip Co., weather-stripping, etc.	40 91	
Trumbull Electric Mfg. Co., panels	205 53	
Uneeda Specialty Mfg. Co., mops and dusters	18 00	
University Press, baskets, blank books, etc.	14 20	
Wickett Bros., lumber	426 00	
Wm. C. Wilson & Co., waste	17 12	
Freight and duty charges	308 38	
Items under $5.00 (22)	62 60	
		$35,123 54
		$38,259 41
Sundry labour, as per pay lists:		
Carpenters	$12,293 64	
Electricians	6,072 91	
Painters	3,713 78	
Plumbers and steamfitters	6,932 36	
Labourers, firemen, etc.	10,553 46	
Cleaners	15,526 15	
		$55,092 30
		$93,351 71

Apportionment of the foregoing:		
Administration ($11,543.39):	Labour.	Material.
Bursar's Office	$10 06	$0 74
Registrar's Office	28 84	12 97
Superintendent's Office	14 17	4 81

Superintendent's Stores and Sundry Labour Account.—Continued.

	Labour.	Material.
Library Building	1,032 26	337 31
Library Current	17 72	46 83
Gymnasium Building	406 53	64 90
Gymnasium, Aid to Athletics	3 18	25 00
Convocation Hall	956 27	340 70
Grounds	6,841 81	764 14
Examinations	3 60	.....
Telephones	.....	600 00
Roll of Service	24 03	7 52
Faculty of Arts ($13,278.27):		
Main Building	3,023 82	961 23
Biological Building	1,194 19	549 87
Biological Department	1,269 58	822 15
Botanical Department	78 82	210 02
Bio-Chemical Department	62 29	62 60
Physiological Department	.....	50 86
Chemical Building	1,120 22	457 70
Chemical Department	230 73	154 58
Physical Chemistry Department	11 44	25 38
Physics Building	1,744 69	542 55
Physical Department	220 62	241 39
Astro-Physical Department	25 90	2 73
Geological Department	2 94	4 77
Mineralogical Department	29 76	24 98
Psychological Department	49 79	20 47
Mechanics Department	.....	3 72
Political Science Department	1 53	3 47
French Department	.....	1 00
University College General Expenses	43 49	28 99
Faculty of Medicine ($4,560.46):		
Anatomical Department	49 76	58 93
Pathological Department	197 58	92 32
Chemical Pathology Department	4 57	52 69
Pharmacy Department	23 57	41 83
Hygiene Department	377 05	321 55
Medical Building	1,590 86	517 38
Pathological Building	1,028 68	197 45
General Expenses	6 02	22
Faculty of Applied Science ($7,879.54):		
Chemistry and Mining Building	2,423 49	758 97
Engineering Building	1,835 37	507 32
Thermodynamics Building	427 13	403 92
Observatory Building	211 95	31 18
Electrical Engineering Department	93 89	95 57
Mechanical Engineering Department	35 08	112 23
Applied Mechanics Department	50 95	31 79
Mining Engineering Department	173 49	167 44
Metallurgical Engineering Department	13 49	15 88
Surveying Department	31 34	77 16
Applied Chemistry Department	99 54	65 12
Electro-Chemistry Department	56 35	31 11
Department of Architecture and Drawing	2 10	47 75
Department of Engineering Physics and Photography	40 86	37 82
General Expenses	.....	1 25
Faculty of Household Science ($1,849.38):		
Household Science Building	1,543 35	263 33
Household Science Department	34 99	7 71
Faculty of Education ($10,477.85):		
Education Building	2,243 44	760 81
Education Building Annex	3,032 89	3,698 44
Education Department	482 04	260 23
Faculty of Forestry ($671.90):		
Forestry Building	453 70	208 19
Forestry Department	7 57	2 44

Superintendent's Stores and Sundry Labour Account.—Continued.

	Labour.	Material.	
University Extension and Social Service Courses ($860.76):			
University Extension	50	3 91	
Social Service Building	710 26	146 09	
Residences and Dining Hall ($5,401.01):			
Men's Residences	528 74	679 57	
Women's Residence Buildings	1,143 58	429 93	
Women's Residence Housekeeping Account	1 50	119 86	
Dining Hall	445 07	201 35	
University College Women's Union Building	852 93	969 31	
University College Women's Union Housekeeping Account	.....	29 17	
Royal Ontario Museum	3,483 62	1,472 24	
Central Power Plant	5,143 46	2,291 36	
University Press	102 42	100 24	
Printing Plant Account	.....	145 00	
Antitoxin Laboratory	1,113 26	1,239 36	
Connaught Laboratories Research Fund	45 35	39 72	
Special Research	569 34	422 91	
Alterations and repairs to sundry properties, various incidental accounts, etc.	185 98	129 61	
Work done for members of the staff, etc. (including accounts receivable on 30th June, 1918, $1,979.60)	5,746 91	11,683 25	
Sundry cash sales	.....	268 11	
	$55,092 30	$35,612 40	$90,704 70
Ledger balance 30th June, 1918 (Schedule 5*a*)			$2,647 01

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